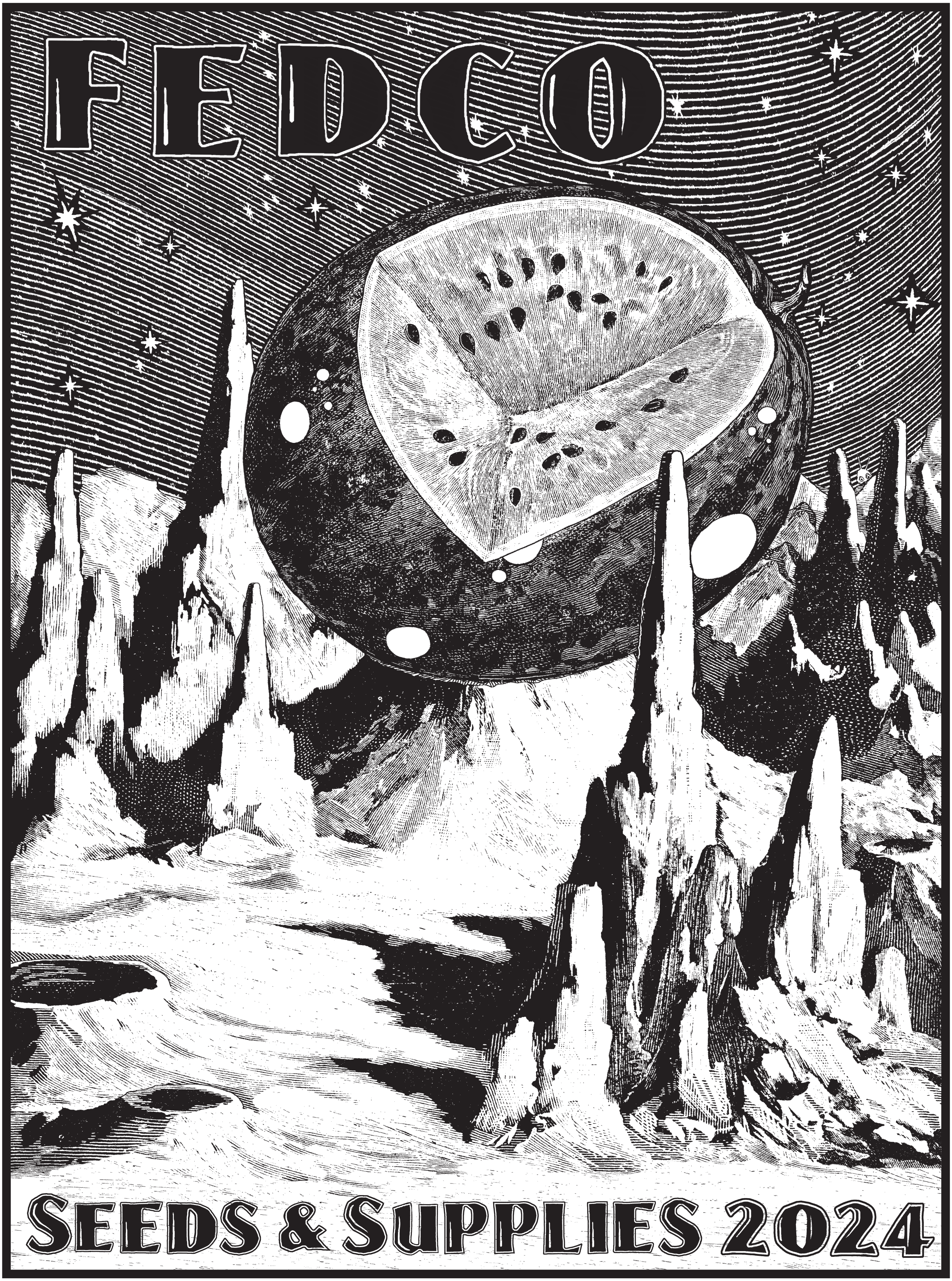
FEDCO



SEEDS & SUPPLIES 2024

FEDCO SEEDS
Garden • Farm • Orchard

Welcome to Fedco's 46th Year!

This year, as we announce our decision to drop all varieties from Syngenta Group, we reflect back on the legacy left by our founding members, who built a business grounded in cooperation, transparency and shared values. From our co-op's inception—a few frugal folks buying in bulk and filling seed packets together—to today with three distinct businesses under joint cooperative leadership and more than 100 workers, the vision of doing things a little differently, a little better, has remained.

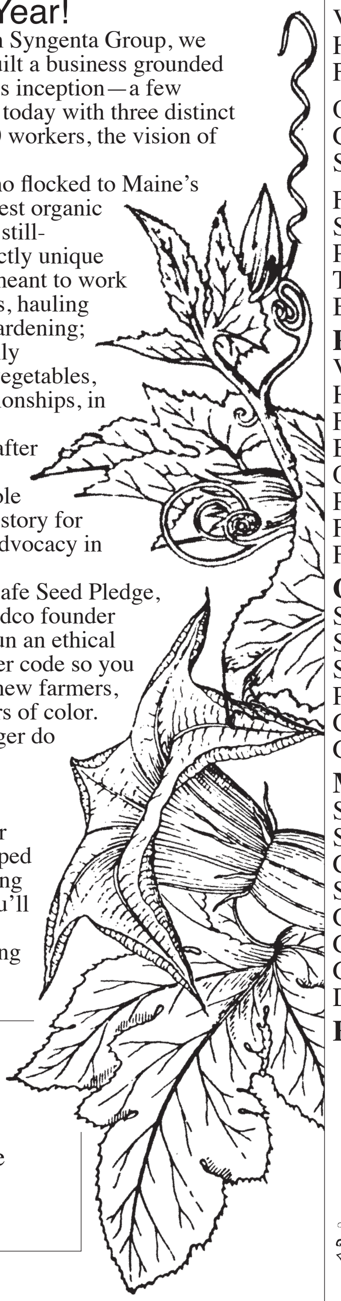
In my early twenties I was among the many young people who flocked to Maine's vibrant agricultural landscape, eager to learn from some of the best organic vegetable farmers in the country. From radicle to roots, I grew a still-deepening appreciation for the lifestyles and livelihoods not exactly unique to rural New England, but quintessential to it. I learned what it meant to work with my hands, harvesting apples, pruning trees, weeding carrots, hauling seaweed for mulch. I taught young students about four-season gardening; coordinated MOFGA's Common Ground Country Fair; and finally embarked on an organic farming endeavor of my own, tending vegetables, flowers and mushrooms. I've learned to cultivate wealth in relationships, in rich soils, in mindfulness and in mettle.

In the summer of 2022, as Nikos Kavanya prepared to retire after forty years at Fedco, my roots branched once more to find the fertile ground she was stepping away from. As I settle into the role of Branch Coordinator at Fedco Seeds, I look into our co-op's history for guidance in ways to provide leadership, strength, allyship, and advocacy in the challenging times ahead.

Fedco was among the first seed companies to sign on to the Safe Seed Pledge, vowing to sell only non-GMO and untreated seed. Guided by Fedco founder CR Lawn's insistence that radical transparency is necessary to run an ethical seed business, we label each variety in our catalog with a supplier code so you know where your seeds come from. We support small growers, new farmers, independent plant breeders, indigenous seed keepers, and farmers of color. Since 2006 we've boycotted Monsanto, and now we will no longer do business with Syngenta Group.

Fedco Seeds' gritty presence, our founders' unwavering (and occasionally cantankerous!) stances on issues crucial to the preservation of agrarian lifestyles—protecting our commons, our environment, and the inalienable human right to save seed—shaped my outlook on what it is to be meaningfully engaged in cultivating a sustainable future. As you look through this catalog, I hope you'll share in my gratitude for the tenacity and good humor of our predecessors, whose work will orient us well as we continue along the path less traveled.

– Courtney Williams



Questions or concerns?

Email: questions@fedcoseeds.com
Call: (207) 426-9900
Phone hours: Monday–Friday, 9am–5pm Eastern time
(Please note that we do NOT take orders over the phone.)
Catalog Request Line: (207) 426-0090

Order online at fedcoseeds.com

Send mail orders to Fedco Seeds, PO Box 520, Clinton, ME 04927

Where Is Everything?

Ordering Instructions **page 168**
Order Forms **pages 169-174**
Complete Index **inside back cover**

begin on page
Vegetable Seeds 7
Herb Seeds 85
Flower Seeds 94

Onion Sets & Plants 116
Ginger, turmeric, sweet potato slips 117
Seed Potatoes 118

Farm Seed / Cover Crops 126
Soil Amendments 133
Pest Control 143
Tools 148
Books 160

Planting Charts & Lists:

Vegetable Chart 83
Herb Chart 84
Flower Chart 92
Botanical Index 111
Organic Variety List 112
Potato Chart 124
Farm Seed Chart 125
Fertigation Chart 136

Guidance for Gardeners:

Seed Storage 22
Seed Longevity Charts 22, 95
Seed Saving Tips & Resources 38
Problem-solving with Cover Crops 129
Cheat Sheet for Beginners 139
Groundbreaking Work 140

Miscellany:

Seed Fundraisers 6
Seed Racks 6
Co-op Membership 6
Seed Collections & Flower Mixes 7
Guarantee 113
Genetic Engineering Statement 113
Group Ordering 168
Depot Shipping 174

Essays:

Why Drop Syngenta? 5
The Seed Without a Price 10
GMO Update 24
Thinking Beyond Heirlooms 67

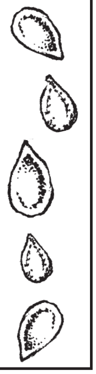
Ordering Deadlines and Shipping Schedules

Order online at fedcoseeds.com. For mail, use forms on pages 169-174.

Products	Page	Ordering Deadlines	Shipments
Vegetable, flower and herb seeds	items on pp 5-110	October 30, 2024	begin mid-December 2023
Seed potatoes, onion sets & plants, sweet potato slips, ginger, turmeric	items on pp 116-122	late spring, when we sell out! (ginger/turmeric: Feb. 23)	begin in April (ginger/turmeric: late Feb.)
Cover crops, soil amendments, tools, supplies and books	items on pp 126-167	none	year-round

Fedco Trees catalog, available in September, lists **spring-planted fruit trees, berries, shrubs and perennials.**

Fedco Bulbs catalog, available online in June, lists **fall-planted flowerbulbs, perennials and garlic.**



Fedco is dropping all varieties from Syngenta

We have decided to stop carrying varieties sold by Syngenta Group and its subsidiaries, Hollar and Goldsmith, and have removed them from our catalog. We've been planning this for years and have found great alternatives in our trials to the varieties we are dropping (see chart below).

During Fedco Seeds' 46 years in business, we've done our best to continuously evaluate what it means to be an ethical seed company and to stand for transparency in an increasingly complex and abstruse industry. In 2000 we introduced our Supplier Codes so customers could know more about where our seeds come from. We track the source of every variety we carry and label each description in the catalog accordingly:

① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.

In 2015 we added a sixth code in response to increased consolidation of seed and chemical corporations—a sector steeped in quiet mergers and hushed acquisitions—and especially as a way to express our concern about a particularly harmful class of insecticides that is a dire threat to pollinators and ecosystems:

⑥ Syngenta, manufacturer of neonicotinoids.

In the years since we began labeling Syngenta varieties, our alarm at its practices has only grown. Syngenta Group is now part of Sinochem, which merged with ChemChina in 2021 as Sinochem Holdings, an enterprise of the Chinese government and the largest agrochemical manufacturer in the world. While our engagement with Syngenta is nominal within the massive global seed trade, in the words of activist Angela Davis, "You have to act as if it were possible to radically transform the world. And you have to do it all the time."

Our decision to sever ties with Syngenta Group means we must give up a few dozen popular hybrid varieties—the results of expensive breeding programs, with proprietary genetics—that we cannot source elsewhere. Our cucurbit line has been particularly hard hit, though we've found excellent replacements.

The varieties we are dropping are widely available in other seed catalogs (as are varieties from Seminis/Monsanto, which we dropped for similar reasons in 2006). We hope you will opt to evolve with Fedco, to forgo these varieties and try something new, for the long-term benefits of autonomy, ethics and greater sustainability.

Read more about this decision and our plans for the future on page 5.

Dropping*	Try Instead
Masai haricots vert	**249** Maxibel
Symphony cauliflower	**3418** Skywalker
Flame Star cauliflower	**3413** Vitaverde: not yellow, but an unusual vibrant green option.
DePurple cauliflower	**3415** Purple Moon
Silver Queen corn	**636** Luther Hill: a parent of Silver Queen
Halona melon	**971** Divergent
Athena melon	**965** Triton
Home Run melon	**974** Tirreno
Dove melon	**971** Divergent
Courier melon	**961** Grusha
Sensation melon	**986** Montreal Market: OP , green flesh
Sangria watermelon	**1050** La Bestia
Super Sugar Snap pea	**892** Sugar Snap
Saffron summer squash	**1516** Multipik
Delta summer squash	**1539** Early Summer Crookneck
Gentry summer squash	**1500** Blonde Beauty
Slick Pik YS 26 summer squash	**1500** Blonde Beauty
Sunburst patty pan squash	**1577** Y-Star
Alexandria Lebanese squash	**1489** White Bush Lebanese
Eight Ball zucchini	**1577** Y-Star: good for stuffing!
Jackpot zucchini	**1407** Modena
Spineless Beauty zucchini	**1405** Green Machine
Raven zucchini	**1410** Respect
Sebring zucchini	**1427** Golden Rod
Lumina pumpkin	**1714** Blanco
Super Sweet 100 cherry tomato	**4119** Peacevine
Inca II marigold	**5212** Marvel Mix II
Zowie Yellow Flame zinnia	**5726** Queeny Series Mix: a different but exciting zinnia mix!

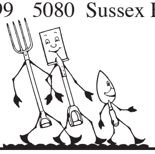
* We have remaining seed for some of these varieties, which we'll sell online until our stock is gone.

NEW! Seed Varieties for 2024

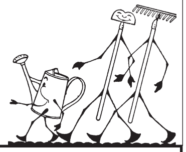
page	item	OG = Organic! ECO = Sustainably Grown!
7	5943	Cutflower Collection: Bouquets for days, and days, and days!
8	293	PB&J Nebula Gene Pool bean: The best thing since sliced bread!
17	3346	Nautic OG brussels sprout: Sail into fall!
18	3391	Klimaro OG cabbage: Klimaro! Klimaro! I love ya! Klimaro!
19	3418	Skywalker OG cauliflower: May the curd be with you!
19	3415	Purple Moon cauliflower: Curds like these come once in a purple moon!
21	2084	Bangor OG unpelleted carrot: Our new favorite carrot, sans pellet!
22	3644	Balena OG celeriac: A whale of a good vegetable!
27	1336	South Wind OG slicing cuke: No matter how you slice it, a great cuke!
29	4554	Dragon OG fennel: Fly high with this fantastic fennel!
31	4208	Kanto Wase ECO rice: We kanto wait to get our hands on these seeds!
43	2762	Camo Oakheart OG lettuce: It'll blend right into your lettuce program!
47	962	Melonade muskmelon: An award-winning release from Yeboncé!
47	965	Triton muskmelon: Melons fit for a demigod!
47	971	Divergent OG muskmelon: Don't try to fit it in a box!
47	974	Tirreno OG muskmelon: As refreshing as an Italian seabreeze!
48	961	Grusha ECO muskmelon: This melon grushed it in our trials!
53	2436	Matador OG shallot: May incite bowl fighting at the dinner table!
58	3752	Resilient Shishito ECO pepper: This pepper is antifragile!
61	3810	Alpine Poblano ECO pepper: Ancho excited about an OP poblano?!
62	2219	Rudolf OG radish: Won't you guide my radish patch tonight?
68	1607	Thelma Saunders OG acorn squash: The color of an actual acorn!
73	4010	Queen of Malinalco OG tomatillo: Mesoamerican magnificence!
74	4150	Cherry Tomato Blend: Sure to cherry up your garden!
85	4417	Dolce Fresca basil: Accessorize your meals with this luxurious herb!
89	4641	Hoary Mountain Mint: Be the first to grayscale this peak of mintiness!
91	4685	Mexican Tarragon: Spice up cooking that's sure to be there and gone!
96	4887	Spotted Bee Balm ECO: This'll bee spotted by pollinators!
99	5096	Blanketflower: Our blanket statement is these blooms are all beauties!
103	5276	Carnevale di Venezia morning glory: We can't mask our love for it!
105	5383	Mikado California poppy: We lost our heads over this poppy!
106	5424	White Snakeroot ECO: Not to be confused with Deep Purpleroot!
106	5430	Cherry Twist snapdragon: Come on baby, let's do the twist!
107	5560	Zohar OG sunflower: Beholding these blooms is a mystical experience!

BACK! in 2024

10	337	Maine Sunset ECO dry bean: This sunset is literally priceless!
13	371	True Red Cranberry OG pole bean: No more Fake Red Cranberry!
19	3406	Bermeo OG cauliflower: Withstands Maine's new Bermeo-like summers!
21	2079	Scarlet Keeper OG carrot: I'll never be hungry again!
27	1340	Marketmore 86 ECO slicing cuke: Cuz who doesn't love the '80s?
33	3042	Rhubarb Supreme OG chard: Stop! in the name of chard!
37	3239	Pink Lettucy Mustard Gene Pool OG: Pretty in pink lettucy leaves!
38	2264	Rat-tail OG radish for pods: Never out of style! Grow your own!
42	2788	Oscarde OG oakleaf lettuce: A mini-head of great distinction!
44	2809	Carmona OG butterhead lettuce: Carmona ovah and have a bibb salad!
44	2815	Optima OG butterhead lettuce: For an optima salad experience!
44	2842	Capitan OG butterhead lettuce: Trust this head to lead the way!
45	2862	Better Devil OG romaine lettuce: Give in to temptation!
54	2407	King Richard OG leek: We asked if it missed us. It replied, *Oc e No*.
54	2306	Andover OG parsnip: We'd grow this over, andover, andover!
55	772	Miragreen OG shell pea: A miracle we finally got this back!
56	884	Mega OG snap pea: Make eating (peas) great again!
57	3704	Peacework OG pepper: Pick a pecka peacework peppers, pals!
57	3725	Staddon's Select OG pepper: Staddonly we're flush with peppers!
59	3736	Mega Marconi OG pepper: Even bigger than Giant Marconi!
61	3874	Orange Habanero pepper: Orange you glad this is back?!
75	4070	Soldacki ECO tomato: Slap a slab of Soldacki on your sammie!
75	4082	Weisnicht's Ukranian OG tomato: An heirloom worth saving!
76	4058	Green Cherokee OG tomato: A new fruit from old roots!
78	4124	Mr. Fumarole ECO tomato: He'll play a starring role in your garden!
79	4146	Blue Beech OG tomato: Also known as Musclewood Paste!
79	4106	Honeydrop OG cherry tomato: Honey, drop everything and grow this!
99	5080	Sussex Flax ECO: For flaxjacks and flaxenistas!



For a punny list of NEW potatoes, supplies, tools and books, see page 114!



Seed backorders and out-of-stocks

We highly recommend you check our website for the most up-to-date inventory status of our products. Our seed supply is in great shape this year, but the supply chain is not back to pre-pandemic standards. To keep our operation costs in check and prices fair, we changed our practices for backorders. We will allow you to purchase a variety on backorder only when we *know* it will be arriving, but arriving late. However, if we are uncertain that a variety is coming at all, we will not accept orders for that item until the grower or supplier guarantees we will receive the seed. **You may have to check back for updates, or sign up for email alerts so we can let you know when your desired item becomes available.** This will cut down on refund checks and multiple shipments of backordered items.

Reading our variety descriptions:

Key to symbols, abbreviations and unique Fedco features

Frog Prince Celeriac - ECO (110 days) OP. A dream come true in vegetable breeding, this one left our trialing team bedazzled and bewildered. In the words of one grower in Zone 3 northern Maine, "I felt a little silly at first, but I followed the cultural instructions on the seed packet and went ahead and kissed my celeriac post-harvest. Didn't even knock the mud off. All I can say is WOW." For those of us unaccustomed to planting one on a plant, the learning curve can be a bit steep. But pucker up and you won't regret it. If you for some reason choose not to kiss your celeriac, you will still have a perfectly fine vegetable, a 1–1½ lb flattened craggy orb, resembling a meteorite, or a mistake. Steam it, roast it, mash it, whatever, and tuck into a humble supper, all alone in your cold little house. Or, kiss your celeriac. **OSSI**. **Breeder Royalties.** ☙ ①

2024 ***A**: 0.1g $2.02*
***B**: 0.2g, $3.03*
***C**: 0.4g, $6.06*
***D**: 2g, $12.12*

Cultivar name

Organic after name means entire lot is certified-organic seed. See page 112 for more info and a full list of organic varieties.

ECO after name means entire lot is sustainably grown seed.

BD after name means entire lot is biodynamically grown seed.

Item number and packet size:
A & B sizes are big enough
for most home gardeners.

Open-pollinated vs. Hybrid

OP = open-pollinated. Choose OP if you want to save seed or breed your own varieties!

F-1 hybrid = Plants will not produce seed that is true to type.

What are Supplier Codes?

Know where your seed comes from!

① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.
~~⑥ Syngenta, manufacturer of neonicotinoids.~~

A unique Fedco feature, these codes provide information about the source(s) of each seed variety. Varieties with more than one supplier may have two or more codes. We code according to our best information at press time. When seed is short we must sometimes change suppliers later in the season. With notable exceptions, we generally choose varieties based on their merits rather than on our supplier preferences. We do not offer genetically engineered varieties, although we purchase from corporations engaged in genetic engineering. Use the Supplier Codes to help you make your own choices about what you are supporting and which varieties are best for your garden or farm.

OSSI and the Four Seed Freedoms

Fedco is proud to be among the 66 seed-company partners of the Open Source Seed Initiative (OSSI), an effort by a consortium of seedsfolks, farmer-breeders, academics and others to keep as many seed varieties as possible in the public domain, unfettered by privatizing restrictions. (See CR Lawn's essay "In Defense of a Seed Commons" from our 2016 catalog at fedcoseeds.com/seeds/seed_ethics.htm)

The OSSI Pledge

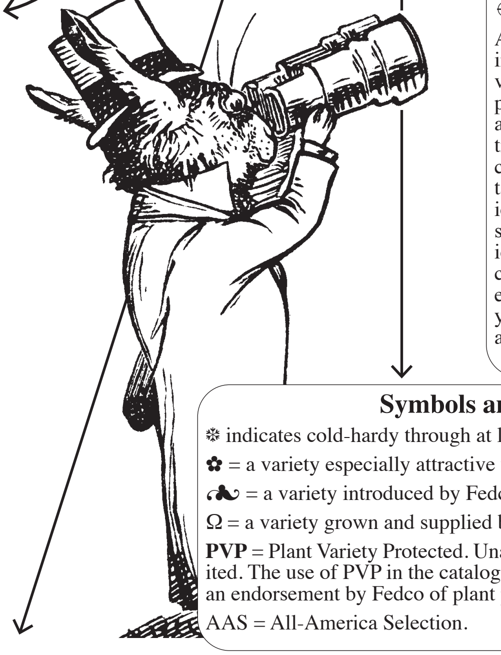
OSSI is signing up as many breeders and seed companies as possible to pledge to keep as many varieties in the Commons as possible. Fedco currently carries 43 OSSI-pledged varieties designated by the OSSI logo in our catalog. We ask each buyer of these OSSI-pledged seeds to uphold this open-source agreement:

> You have the freedom to use these OSSI-pledged seeds in any way you choose. In return, you pledge not to restrict others' use of these seeds or their derivatives by patents or other means, and to include this Pledge with any transfer of these seeds or their derivatives.

The Four Seed Freedoms

OSSI opposes intellectual property (IP) provisions that restrict what OSSI has identified as the four seed freedoms:

1. The freedom to save or grow seed for replanting or any other purpose.
2. The freedom to share, trade, or sell seed to others.
3. The freedom to trial and study seed and to share or publish information about it.
4. The freedom to select or adapt the seed, make crosses with it, or use it to breed new lines and varieties.



Symbols and Abbreviations:

❄ indicates cold-hardy through at least part of Maine winter. See p. 32.

✿ = a variety especially attractive to pollinators.

☙ = a variety introduced by Fedco followed by the year first offered.

Ω = a variety grown and supplied by the plant breeder.

PVP = Plant Variety Protected. Unauthorized propagation of the seed is prohibited. The use of PVP in the catalog is for information and in no way constitutes an endorsement by Fedco of plant patenting.

AAS = All-America Selection.

Breeders and Keepers of Seed

Indigenous Royalties

In 2018 we began paying royalties in recognition of the Native breeders and Seed Keepers of the past and present, whose varieties have endured and continue to sustain us here on Turtle Island. We are indebted to those keen eyes, practiced hands and seed relationships, so often overlooked. Fedco's catalog is rife with references to probable Native provenances.

We will continue to pay royalties, this year for varieties that either hold a Wabanaki (from this bioregion) story or that have a tribal designation in the name. These royalties will go to Indigenous nonprofit Nibezun, here in Maine. According to nibezun.org,

> Nibezun resides on sacred Wabanaki land along the Penobscot River, where we celebrate culture as medicine, provide an inclusive space for healing, and promote sustainability for all people and future generations. Nibezun is dedicated to preserving and promoting all aspects of Mi'kmaq, Passamaquoddy, Penobscot, Maliseet, and Abenaki ceremonies, traditions, customs, and language through practice and education. To advance this goal, we are deeply committed to the sacred, unbroken relationship between the People and the ancestral lands and waterways of the Wabanaki Confederacy. We believe that by working with our land and our cultural traditions, we can heal ourselves and promote healing in others, and in so doing we can heal the greater environment and recreate the symbiotic, reciprocal relationship with our Mother Earth enjoyed by the ancestors of the Wabanaki People.

In 2023 Fedco paid $9,379.50 in Indigenous Royalties (Seeds $2,928.64, Trees $4,655.12, and Organic Growers Supply $1,795.74). Customers donated an additional $836.60 to Nibezun from their refunds.

Black Benefit Sharing

When Black people were stolen out of Africa, torn asunder from their homelands and enslaved, they carried their seeds with them, to plant in new ground. Seeds: the memory and the culture of what was left and the hope of the future. Those plants became the basis of new food traditions in the Americas. The enormous debt for such a purloined treasure has yet to be fully acknowledged or repaid. As a small step, we've designated about a dozen varieties that originate in Africa, or are part of Black foodways, for **Black Benefit Sharing**. 10% of proceeds from the sale of these seeds will go to the Northeast Farmers of Color Land Trust for their work helping farmers of color purchase their own farms. Last year benefit sharing totaled $1,051.80.

Breeder Royalties

For many years Fedco has been proactive in paying royalties to the current generation of "backyard breeders" whose varieties we purchase from other sources. We recognize the value of their work and appreciate that they are keeping these seeds in the Commons, available to all.

The label **Breeder Royalties** at the end of a variety description indicates we pay royalties to the independent breeder because they are not receiving income from our purchase of the seed.

Last year these royalties totaled $7,339.68.

Ω Independent plant breeders

Continuing a long tradition of adapting varieties to local tastes and conditions, independent plant breeders are the backbone of culture. For the most part eschewing plant patents, their work is their reward. Fedco is committed to buying seed from small breeders to give economic support to their work. Though we can find cheaper seed elsewhere, we prefer not to compromise on quality or ethics. We hope you agree—by purchasing seed with the Ω symbol.

Why Drop Syngenta?

In our 2015 catalog, Fedco's founder CR Lawn asked, "Can we, with a straight face, call our agriculture sustainable if we are addicted to varieties produced by multinational corporations that thrive by feeding a system dependent on the toxic chemicals they manufacture?" Trying to strike the delicate balance of economy, reliability and ethical seed sourcing, we've determined that we could not claim with integrity that we promote sustainable agriculture while continuing to purchase and sell seeds from Syngenta Group.

There are two major reasons this corporation's structure and practices are not aligned with Fedco Seeds' values: Its perpetration of extreme and harmful consolidation of the seed industry; and its manufacture of a particularly toxic class of agrochemicals called neonicotinoids.

Extreme Consolidation of the Seed Industry

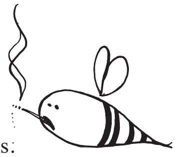
In her 2019 article in *Civil Eats*, Kiki Hubbard of the Organic Seed Alliance reported that four firms, including Syngenta, controlled 60% of the global vegetable seed market, making the seed industry one of the most consolidated in agriculture, and in the economy as a whole. She wrote, "History shows us that seed industry consolidation leads to less choice and higher prices for farmers. These companies also aggressively protect their IP [intellectual property] rights, which means less innovation and more restrictions on how seed is used and exchanged, including for seed saving and research purposes."

We recall the words of eminent University of Wisconsin plant breeder Dr. William F. Tracy: "Placing the responsibility for the world's crop germplasm and plant improvement in the hands of a few companies is bad public policy.… The primary goal of private corporations is to make profit, and…this goal will be at odds with certain public needs.… The future of our food supply requires genetic diversity but also demands a diversity of decision makers."

Between January 2019 and June 2023, Syngenta Group acquired seven more plant-breeding and seed-production companies. Of particular concern to us was their acquisition of long-time family-owned Hollar, for many years the source of our best cucurbit varieties.

Reliance on seed from companies that hold an oligopoly on the industry goes against our value of supporting the democratic and cooperative process. Stifling innovation through restrictive patents works against the independent companies and growers that Fedco is dedicated to supporting. The privatization of seeds is in conflict with our value of encouraging the preservation and use of open-source seeds.

Harmful Effects of Neonics on Pollinators



The largest multinationals dominating the seed industry all position themselves as agrochemical companies. Syngenta Group is no exception, with more than 80% of its gross revenue of $16+ billion in 2022 coming from manufacture of "crop protection" chemicals. Among the most harmful of these are neonicotinoids (aka *neonics*).

Neonics are a class of insecticides that affect the central nervous system of insects, killing or harming a wide variety of both target and non-target species. When applied to a seed or the soil, the chemical is absorbed by roots and transported by the vascular tissue to become systemic throughout the plant, present in leaves, flowers, nectar and pollen. These water-soluble chemicals can be transported through soils into waterways. In a national study of streams near agricultural sites in the U.S, at least one neonic was detected in over half of streams sampled. Neonics can persist in soils for weeks to months, and possibly even years, extending the duration and extent of effects on the ecosystem.

In 2013 after conducting a formal review of existing studies, the European Food Safety Authority concluded that neonics pose an unacceptably high risk to bees. The EU voted for a 2-year moratorium restricting the use of imidacloprid, clothianidin and thiamethoxam on crops that attract bees. Syngenta took them to court, which ruled that the EU could pass the ban if there was uncertainty about risks to human health or the environment, and did not have to wait until it was clear that harm had been caused. In 2018, the EU extended the ban, which is still in effect today.

In June 2022, the EPA released the final Biological Evaluation assessing effects to endangered or threatened species from *labeled uses* of thiamethoxam and found it adversely affects 77% of these species and 81% of their critical habitats.

Building on our History, Looking to the Future

Since the beginning, Fedco Seeds has stood for the intersectional advocacy of environmental, social and food justice issues. We dovetail this work with our goal of offering the best varieties adapted to our demanding climate.

We are most passionate about supporting our code ① growers (about 20% of our varieties come from small seed farmers), but many excellent varieties are available only from bigger companies, coded ②, ③, ④ and ⑤. As the code number rises, the waters tend to get murkier, with more corporate consolidation, liberal use of restrictive patents, participation in genetic-engineering technologies, and less overall transparency.

While we normally select varieties based on their merits in the field, rather than on our supplier preferences, several times we've chosen to eschew varieties that run contrary to our values:

- In 1996, our co-op voted unanimously not to knowingly offer any genetically engineered variety because the gene technologies posed unacceptable risks to the environment.
- In 2006, the Monsanto buyout of Seminis presented us with a serious ethical dilemma, and we made the pivotal decision to drop the Monsanto/Seminis product line. Many of these popular varieties felt indispensable at the time, but we knew supporting Monsanto came at a devastating social and environmental cost.

Our decision to drop varieties from Syngenta aligns with this precedent.

Where We Are Headed

As we shift our reliance and resources away from consolidated corporate control by chemical companies, we are better able to invest in seed breeding and distribution where the goals are a sovereign food system, climate resilience, ecological stewardship, and farmer and community well being.

For decades we've worked with like-minded seed companies and independent breeders who are passionate about developing open-pollinated varieties for people and for the future:

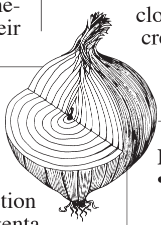
- **Carol Deppe** conceptualizes breeding for survival for the next thousand years. Her varieties in our catalog include Fast Lady Northern Southern cowpea, Gaucho bean, White Candle bean, Brown Resilient bean, Cascade Ruby Gold flint corn and Goldini II zucchini.
- **Dave Christensen** has brought forward delicious corn varieties dense in vital nutrients. His varieties include Painted Mountain Flint, Blue Mountain Flint and Montana Morado Maize.
- **Common Wealth Seeds** recently brought us two great cukes that repeatedly outperform hybrids in our trials: Common Wealth pickler and South Wind slicer.
- **Wild Mountain Seeds** develops OP varieties bred to perform well in the harshest growing conditions: Resilient Shishito, Alpine Poblano, Chocolate Stripes Improved tomato, and Mountain Spirit tomato.
- **Wild Garden Seeds** have been developing seemingly endless lettuce, kale and calendula varieties, listed in our catalog for many years.

Also look for varieties with the **OSSI** symbol, and those labeled as Breeder Royalties or Breeder Grown (Ω). These independent open-source breeding projects are where we want to focus our funds and energy.

The seed industry will keep changing. Even for us, steeped in it day in and day out, keeping up with the swift and quiet mergers and acquisitions of companies large and small is a challenge. We will keep sharing our findings with you, so please stay tuned.

Severing ties with Syngenta Group brings us a step closer to the world we want for each other, for other creatures, for the land and for future generations. You, farmers and gardeners, are a critical part of this step. We hope you take it with us.

Unpeeling the Syngenta Onion



In 2000 the agricultural divisions of pharmaceutical giants Novartis and AstraZeneca merged to form Syngenta. Over the next 20 years, it acquired numerous seed and agrochemical producers internationally.

Acquired by ChemChina in 2017 in the largest global takeover by a Chinese company, Syngenta then merged in 2020 with Israeli crop-protection company ADAMA and the agricultural branch of Sinochem to form Syngenta Group. It continued to acquire other seed and chemical companies.

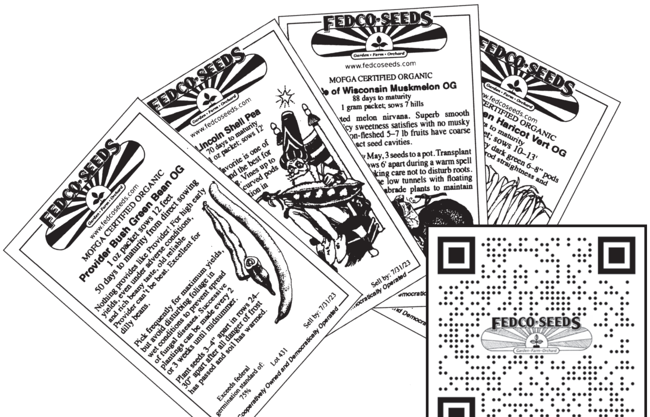
In 2021 ChemChina and Sinochem completed their merger as Sinochem Holdings, a wholly owned subsidiary of the State-owned Assets Supervision and Administration Commission (SASAC), run by China's State Council, a powerful body of China's executive branch. Sinochem is the world's largest agrochemical conglomerate.

Further Reading:

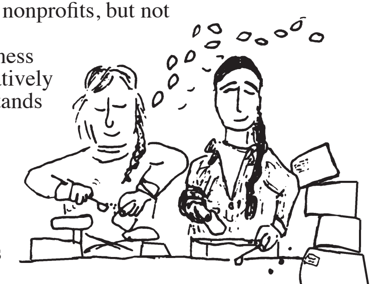
- Fedco's statement on why we do not purchase from Monsanto: fedcoseeds.com/seeds/monsanto.htm.
- *Neonicotinoids 101: The Effects on Humans and Bees*: nrdc.org/stories/neonicotinoids-101-effects-humans-and-bees
- Seed Industry Consolidation Chart: philhowardnet.files.wordpress.com/2023/01/seed2022.pdf

FEDCO·SEEDS
FUNDRAISERS

Tired of selling wrapping paper, candy and smelly candles for your organization's fundraiser? Consider our newly improved fundraiser program and spread the joy of seeds with your sale.



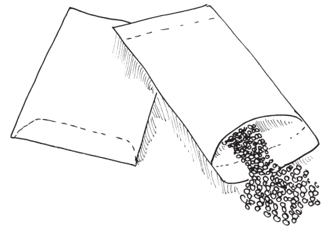
- New online platform streamlines the process for customers and fundraiser coordinators.
- Earn a 50% profit for each seed packet sold.
- Packets feature our signature black-and-white drawings and planting instructions.
- Customers choose from 50 easy-to-grow varieties with many certified-organic options.
- Integrate fundraising efforts with garden lesson plans by opting for our bulk fundraiser option where students design their own seed packets and measure out quantities.
- Our program is open to schools, PTA groups, community organizations and nonprofits, but not to third-party beneficiaries.
- Fedco has been in the seed business since 1978. Support a cooperatively owned Maine company that stands up for seed sovereignty and a sustainable future.



To start your fundraiser, email us: fundraiser@fedcoseeds.com

Or scan QR code above to visit:
fedcoseeds.com/seeds/fundraisers

Seed Envelopes Our reclosable seed envelopes, plain white with no logo. Use them for seed saving, repacking bulk seed, or tucking away treasures. Two sizes.



Seed Envelopes 3¼ x 4¾"

5959 ***A****: bundle of 10, $1.95*
B*: bundle of 50, $8.15*
C*: bundle of 100, $14.95*

Larger Seed Envelopes 3⅝ x 5½"

5960 ***A****: bundle of 10, $12.00*
B*: bundle of 50, $40.00*
C*: bundle of 100, $60.00*

Fedco's Packet Rack Program for Retailers

Portable cardboard packet racks suitable for all our A-size packets. Each collection has 28 or 56 varieties and either 5 or 10 packets of each variety.

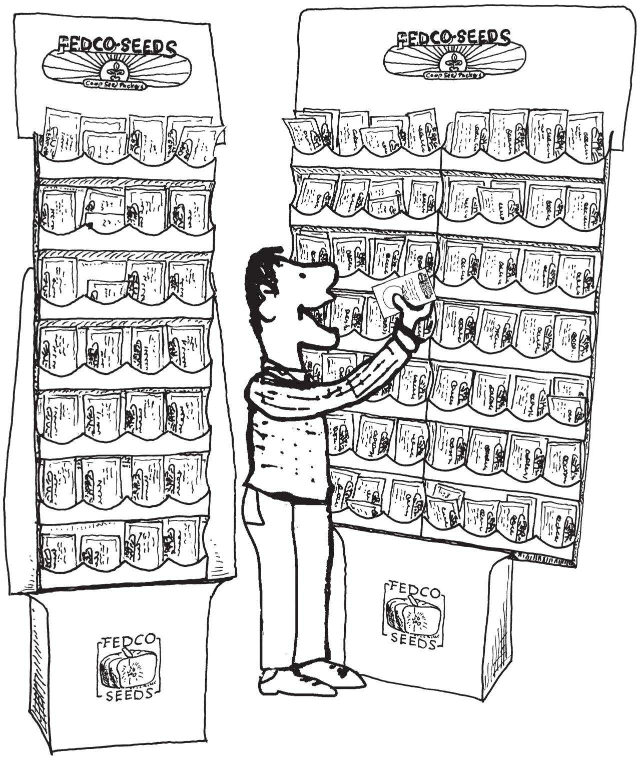
- Redesigned seed packets with black-and-white graphics and planting instructions.
- Recyclable free-standing cardboard display racks available, sold separately from retail seed collections.
- Retail packets currently available for outright buy only.
- No suggested retail cost, so vendors can set their own profit margins.
- Free shipping on orders over $50.
- New online reordering platform allows custom collection orders for retail customers.
- Competitive pricing.
- Improved personalized customer service.

2024 Retail Seed Collections:

Popular Favorites (28 or 56 varieties)
All Certified Organic (28 or 56 varieties)
Certified Organic Greens (28 varieties)
Kitchen Herbs and Flowers (28 varieties)

For more information about our program contact molly@fedcoseeds.com

Or scan QR code to visit:
fedcoseeds.com/seeds/list-seed-racks



Join our Cooperative as a Consumer Member

Our more than 1,400 consumer members and 130 worker members are the foundation of our strength and the fount of our support. Here's your chance to join the Fedco cooperative and help us continue far into the future. We have a lot of work ahead to build a sustainable seed system.

- We ask for a **$100 membership equity**, refundable upon request.
- If this would be a hardship, there is a **$25 option**.
- Limited to one membership per household, farm or organization.

Benefits include:

- 1% discount on all orders
- An invitation to our Annual Meeting of Members
- A chance to vote for and serve on our Board of Directors
- The satisfaction of owning a small part of a successful coop!

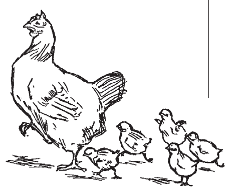
For more information, see our website:
fedcoseeds.com/members.htm

SEED COLLECTIONS

Overwhelmed by choices? Choose a collection. We'll select the varieties, and you'll save about 10% off individual packet prices, 20% for the Freed Seed Collection. See also our Children's Grow Kit (p. 149), which includes tools and supplies. We hope to offer gift box versions of our most popular collections—check the website for details.

Bee and Butterfly Pollinators Collection Help feed the bees and butterflies and attract pollinators to your garden. Contains 10 packets. Varieties could include phacelia, poppies, calendula, nasturtium, cilantro, borage, tithonia, dill, Hon Tsai Tai, butterfly weed, anise hyssop, bachelor button mix, sunflowers or cosmos. ✿

5931 ***A****: 10 packets, $24.80*



Chicken Scratch Clucktion A collection of quick-growing tasty greens for chickens. Grow a patch for them to graze on, or for you to clip and feed to them—or yourself. Contains 6 packets that could include lettuce mix, kale mix, collards, swiss chard, Yokatta-Na or Senposai or spinach.

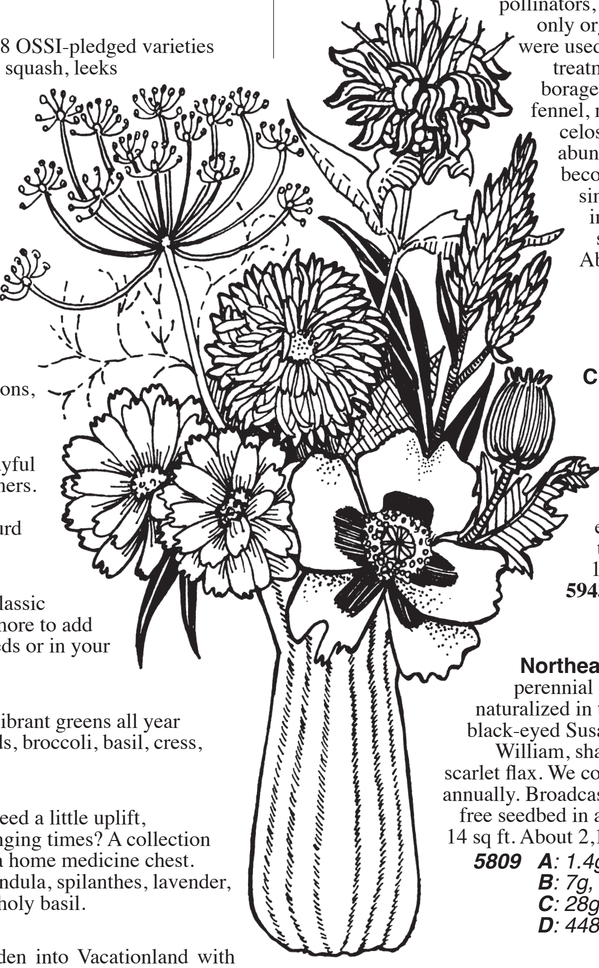
5932 ***A****: 6 packets, $20.10*

Container Garden Collection A selection of varieties that will grow well in small spaces, whether a waist-high growing box, a raised bed, or in big pots. Contains 10 packets that could include lettuce mix, greens mix, cherry tomato, sweet pepper, cucumber, parsley, basil, scallions, pac choi, and trailing petunia or nasturtium.

5933 ***A****: 10 packets, $27.10*

Freed Seed Collection A diverse selection of 8 OSSI-pledged varieties (see page 4). Will include lettuces, greens, winter squash, leeks or onions, watermelon, calendula and more. Support the Seed Commons!

5934 ***A****: 8 packets, $29.00*



Garden Start-up Collection Easy-to-grow varieties for spring through fall harvest. Includes garden tips for beginners. Contains 7 packets including: bush green beans, zucchini, cucumber, beet, lettuce mix, calendula and sweet basil.

5935 ***A****: 7 packets, $17.35*

Edible Flower Collection A cheerful collection of edible flowers. Grow them for salads, vases, or to add color to your garden. Contains 6 packets that could include calendula, borage, nasturtium, gem marigolds, bachelor buttons, anise hyssop or Hon Tsai Tai.

5936 ***A****: 6 packets, $14.90*

Kids' Starter Garden Collection Fun and playful easy-to-grow varieties to encourage young gardeners. Contains 8 packets including: sunflower, bean, popcorn, large pumpkin, colored carrots, pea, gourd mix and zinnias. Ideal for ages 5 and under.

5937 ***A****: 8 packets, $26.60*

The Kitchen Herb Garden A collection of 7 classic culinary herbs. Basils, parsley, cilantro, dill and more to add flavor to every dish. Grow them in pots, raised beds or in your kitchen garden.

5938 ***A****: 7 packets, $18.60*

Microgreens Collection Grow trays of tasty vibrant greens all year round. Contains 8 packets including: kale, collards, broccoli, basil, cress, arugula, mustard and spinach.

5939 ***A****: 8 packets, $23.95*

Natural Remedies Collection Who doesn't need a little uplift, restoration and calm in these stressful and challenging times? A collection of supportive herbs to provide the foundation of a home medicine chest. Contains 7 packets: our choice of echinacea, calendula, spilanthes, lavender, lemon balm, hyssop, borage, catnip, feverfew or holy basil.

5940 ***A****: 7 packets, $18.90*

Maine Seed Collection Transform your garden into Vacationland with varieties that have a connection to Maine. Contains 6 packets that could include Jacob's Cattle dry bean, NE Long Pie pumpkin, Boothby's Blonde cuke, Pike turnip, Matchbox pepper and Cherry Bomb tomato.

5941 ***A****: 6 packets, $22.85*

Children's Grow Kit Refill The easy-to-grow varieties included in our Children's Grow Kit (see page 149) for each of a dozen crops (bean, carrot, popcorn, cucumber, sunflower, lettuce, muskmelon, snap pea, sweet pepper, pumpkin, radish and cherry tomato). Ideal for ages 6 and up.

5942 ***A****: 12 packets, $38.45*

Cutflower Collection Annual flowers for bouquets! You will find a similar array as in our **5807** Cutflower Mix, but in separate packets rather than mixed together in one packet. This way you can consider each variety's individual growing needs, like planting time and spacing. Contains 6 packets, varieties could include bachelor's button, sweet pea, cosmos, zinnia, snapdragon, sunflower and more. **NEW!**

5943 ***A****: 6 packets, $18.50*

FLOWER MIXES

What's more satisfying than preparing a nice seedbed and scattering a Fedco flowerseed mix? Our custom blends will delight and surprise, both by the various forms of the seeds themselves and of course by the blossoms and bees to come.

Flowering Lawn Mix We have a feeling Fedco's now-retired visionary founder CR Lawn would approve of this alternative lawn mix. Ever the unorthodox strategist, he would find efficiency in sowing a low-maintenance and diverse collection of short and creeping plants—leaving more time for his beloved vegetable garden—while appreciating the beauty of flowers and clovers intermingled with fine fescue grass. Includes 13 species, many of which feed pollinators. The smallest packet size will plant about 12 sq ft. This lawn is sure to create a buzz in your neighborhood. ✿ ③

5800 ***A****: 1/2oz, $8.95* ***B****: 2oz, $20.50*
C*: 8oz, $64.00* ***D****: 2#, $152.00*

Beneficials Mix - Organic Plant breeder Frank Morton teaches that "when you increase the diversity of an ecosystem you enhance its ability to maintain itself and to resist perturbation." One way to attract and maintain a diverse population of beneficial insects and pollinators is to sow this mix of annuals, biennials and perennials. Instead of resorting to toxic sprays, invite hover flies, ladybugs, lacewings, parasitic wasps, tachnids, spiders, minute pirate bugs, damsel flies and big-eyed bugs and let them devour the "bad" bugs! Something in the mix will be blooming from spring through fall. Addressing concern over neonicotinoids and their deleterious effects on pollinators, we designed our beneficials mix to contain only organic seed, ensuring that no neonicotinoids were used in seed prep, plant growth or after-harvest treatment. Consisting of anise hyssop, bee balm, borage, calendula, California poppy, cilantro, dill, fennel, mustard, parsley, phacelia and Ruby Parfait celosia, this mix will be sure to please a diverse abundance of insect helpers. Should any variety become unavailable we will substitute one with similar efficacy. Sow in spring as a hedgerow in a well-prepared weed-free seedbed in full sun. Our A-size packet sows about 14 sq ft. About 2,100 seeds/g. ✿

5804 ***A****: 1.4g, $3.50*
B*: 7g, $11.00*
C*: 28g, $28.00*
D*: 112g, $90.00*

Cutflower Mix A mixture of annual flowers that can be used for cutting. Includes popular types such as aster, bachelor's button, calendula, cosmos, zinnia; also some lesser-known kinds. After danger of frost, broadcast seeds into a weed-free bed in full sun. To make broadcasting easier, mix sand with seeds to help disperse them evenly. Our A-size packet sows about 12 sq ft. If sowing a larger area, try our new **5943** Cutflower Collection. ✿

5807 ***A****: 1g, $2.75*
B*: 14g, $7.00*

Northeast Wildflower Mix A popular blend of 19 perennial and self-sowing annual species native to or naturalized in the northeastern U.S. and Canada. Includes black-eyed Susan, New England aster, blazing stars, sweet William, shasta daisy, bachelor's button, echinacea and scarlet flax. We consistently sell more than 100 lb of this mix annually. Broadcast in spring or fall in a well-prepared weed-free seedbed in a sunny spot. Our A-size packet sows about 14 sq ft. About 2,100 seeds/g. ✿ ②

5809 ***A****: 1.4g, $2.75*
B*: 7g, $5.50*
C*: 28g, $10.00*
D*: 448g, $55.00*

> The soil amendment recommendation for my vegetable garden was so awesome, informative, and really made a difference. I am clearing for an orchard and want to start on the right foot with your advice!
> – Abby from Stetson, ME

Soil Testing & Organic Fertilizer Recommendation Service for Garden, Farm and Orchard

Don't guess—test! We offer **customized recommendations** for how to correct deficiencies or imbalances in your soil. Details on page 133. You can order this service on either the Organic Growers Supplies or Seeds order form.

5965 ***A****: for annual vegetable crops (0#) for $56.50*
B*: for orchards (0#) for $56.50*

ARTICHOKE

Cynara scolymus

About 20 seeds/g.

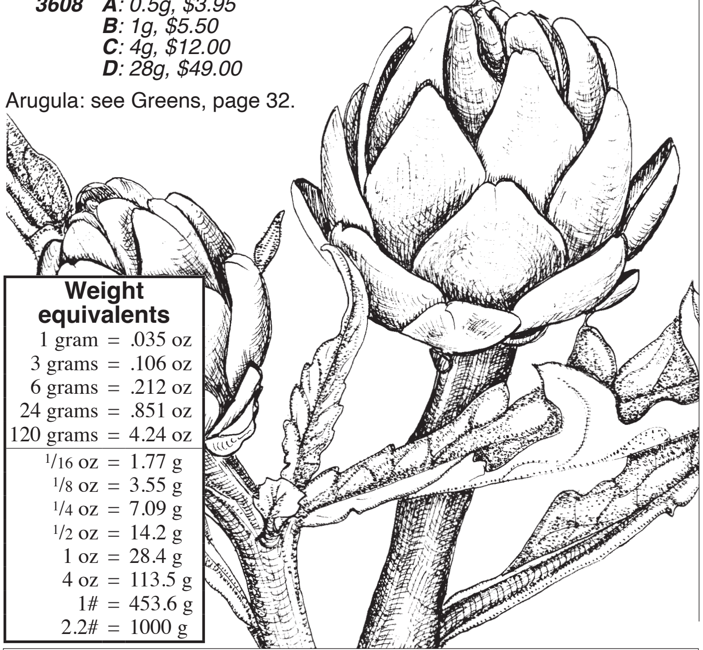
Culture: The artichoke is biennial, requiring trickery in the North to induce production of its edible flower buds. Follow these instructions for vernalization:

Start seeds indoors in mid-February and grow on at around 70˚ during the day and 50˚ at night. When night temps no longer drop more than a few degrees below freezing (mid-April to mid-May in New England), move seedlings to an unheated greenhouse or cold frame to harden off. Keep them well ventilated and as cool as possible without freezing. Plants (both seedlings and mature) can tolerate light frosts but not hard ones. (If this hardening-off regimen is not feasible, try to time transplanting so plants receive 7–10 days of 45–50°.) After danger of frost has passed, set plants out 3' apart in rows 4' apart. Incorporate generous amounts of compost or aged manure. A balanced fertilizer is beneficial. Plants need at least 1" of water per week. Mulch with hay or IRT mulch (p. 141). Row cover (p. 142) helps hasten maturity.

Imperial Star - Organic (120 days from transplant) OP. A harvest of beautiful artichokes is well worth the fuss of persuading this Mediterranean biennial into behaving like an annual. The plant-breeding efforts of Wayne Schrader and Keith Mayberry of California Cooperative Extension made this delicious flowerbud accessible to northern gardeners in 1991. In New England, plants tend to bear 2–4 chokes during cool fall weather; however, with climate change, our plants in central Maine are tending toward 6–8 chokes per plant, closer to West Coast standards. Left to bloom, the buds open into massive otherworldly blue flowers that dry well. Overwintering with care is possible in mid-Atlantic states. *Caution*: May not produce in Zone 4 and colder. ③

3608 ***A****: 0.5g, $3.95*
B*: 1g, $5.50*
C*: 4g, $12.00*
D*: 28g, $49.00*

Arugula: see Greens, page 32.



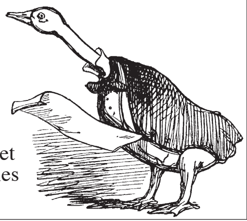
Weight equivalents

1 gram = .035 oz
3 grams = .106 oz
6 grams = .212 oz
24 grams = .851 oz
120 grams = 4.24 oz

1/16 oz = 1.77 g
1/8 oz = 3.55 g
1/4 oz = 7.09 g
1/2 oz = 14.2 g
1 oz = 28.4 g
4 oz = 113.5 g
1# = 453.6 g
2.2# = 1000 g

Some Basic Definitions

- **Open-pollinated (OP)** varieties produce true-to-type seed if they are allowed to cross-pollinate only with other plants of the same variety. If they cross with other varieties of the same species, their seed will not be true.
- **Hybrid** varieties are those produced from the crossing of two different inbred lines. Seed saved from hybrid varieties may result in a crop with new expressions of traits, very much unlike the original hybrid.
- Among open-pollinated plants, **self-pollinated** (selfers) usually reproduce by using their own pollen. **Crossers** usually reproduce through the transfer of pollen from one plant to a different plant of the same species.
- Botanical nomenclature goes from the general to the specific. Plants are classified into kinds by **genus**, **species** and **variety**. In *Cucurbita pepo* Sweet Dumpling, *Cucurbita* is the genus, *pepo* is the species and Sweet Dumpling is the variety.

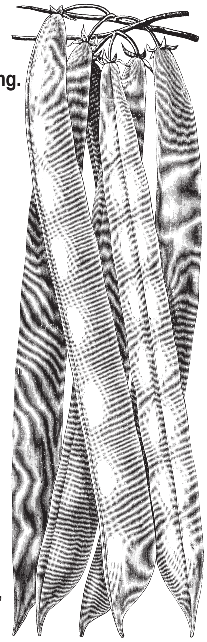


Optimal Germination

Sowing seeds at sub-optimal temperatures is the most common cause of failure. We try to provide germination temps for each kind of vegetable. You could also consult *Knott's Handbook for Vegetable Growers* and *The New Seed-Starters Handbook* by Nancy Bubel for optimal germination temps.

BEANS

Phaseolus vulgaris



- All beans are open-pollinated.
- Days to maturity are from emergence after direct sowing.

Culture: Tender, will not survive frost. Plant seeds 3–4" apart in rows 24–30" apart after all danger of frost has passed and soil has warmed. **Minimum germination soil temperature 60˚; optimal range 70–80˚.** White-seeded beans are generally more sensitive to cold soil temps than dark-seeded varieties. Legumes have moderate fertility needs and can fix their own nitrogen. Excessive nitrogen may induce some bush varieties to develop vines in moist hot weather.

Diseases:

ANTH	Anthracnose
BBS	Bacterial Brown Spot
CBMV	Common Bean Mosaic Virus
CTV	Curly Top Virus
DM	Downy Mildew
HB	Halo Blight
NY15	NY15 CBMV
PM	Powdery Mildew
PMV	Pod Mottle Virus
R	Rust

White mold *Sclerotinia sclerotiorum* affects more than 300 plant species. In beans, low humidity, good air circulation and wider spacing, both between plants and between rows, reduce the likelihood of this soil-borne infection.

BUSH BEANS

About 120 seeds/2 oz packet. 2 oz packet sows 25 ft; 1 lb, 200 ft. Seed sizes vary.

Pick frequently for maximum and steady yields, but avoid harvesting or disturbing foliage in wet conditions to prevent spread of fungal diseases. Successive plantings can be made every 2 or 3 weeks until midsummer.

GREEN BUSH BEANS

Provider (50 days) OP. For highest early yields—even under adverse conditions—and rich beany taste, nothing provides like Provider. Noted for its concentrated sets of round 5–5 1/2" pods. "There is no substitute for Provider beans," says Chris Carlin of Hyde Park, VT. Also excellent for canning and "my choice for freezing and dilly beans," says Elaine Carlson of Cape Porpoise, ME. Provider and **225** Royal Burgundy re-flower repeatedly after heavy pickings followed by rains. Came in one day ahead of Contender for earliest in our observation plot. Our best-selling variety in the catalog year after year. Last year we sold 1 ton of seed. Released by USDA in 1965. Purple seed. Resistant to CBMV, NY 15, PM, DM, PMV.

Provider ③④⑤

204 ***A****: 2oz, $4.15* ***B****: 8oz, $6.85* ***C****: 1#, $10.00*
D*: 5#, $28.50* ***E****: 10#, $48.00*

Provider - Organic ①

205 ***A****: 2oz, $5.50* ***B****: 8oz, $9.60* ***C****: 1#, $16.00*
D*: 5#, $60.00* ***E****: 10#, $112.00*

Strike (53 days) OP. Market growers will strike it rich with heavy yields of medium-green 5 1/2" slender smooth straight round pods. Strike sets the standard for earliness, appearance and ease of picking, and has a pleasing sweet beany taste. White seed. Resistant to NY 15 and CBMV. ③④⑤

210 ***A****: 2oz, $3.75* ***B****: 8oz, $8.25* ***C****: 1#, $11.25*
D*: 5#, $35.50* ***E****: 10#, $57.00*

Accelerate (53 days) OP. According to Lewis & Sample's classic text *How to Talk Yankee*, "exhilarate" can mean putting the proverbial pedal down, or that feeling of eager excitement when picking and steaming up that first mess of summer green beans. For an exhilarated bean crop, organic gardeners and farmers can expect from Accelerate high root-rot resistance without resorting to treated seed. Broad tall mounded plants are vigorous, healthy and totally loaded with excellent round 6–7" medium dark green beans. Bean production comes on fast and keeps up for weeks. While its University of Wisconsin breeders tout its resilience in cold seasons, we found it boldly prolific in our very dry hot 2020 Maine summer, and it was ready before Provider in 2021. Its massive root system makes it a pretty good bet, regardless of the stress. Resistant to BBS, CBMV, root rot. **PVP.** ②

212 ***A****: 2oz, $3.75* ***B****: 8oz, $7.45* ***C****: 1#, $12.15*
D*: 5#, $41.00* ***E****: 10#, $77.00*

Jade (56 days) OP. Produces great yields of tasty 5–7" straight slender round dark green beans that keep coming until late in the season, long after others have quit. Tender pods with traditional bean flavor retain rich color longer than others, both on the vine and after picking. Jade's strong upright bush habit holds pods above the ground, reducing curling and tip rot. Resistant to BBS, CBMV, NY15, CTV, tolerant to R. White-seeded Jade is a fussy germinator. Needs soil temperature at least 60° and irrigation during dry spells.

Jade ③⑤

230 ***A**: 2oz, $4.50* ***B**: 8oz, $8.50*
***C**: 1#, $12.25* ***D**: 5#, $41.00*

Jade - Organic ② **BACK!**

231 ***A**: 2oz, $5.25* ***B**: 8oz, $10.75*
***C**: 1#, $16.00* ***D**: 5#, $55.00*

Bush Blue Lake 274 (57 days) OP. Long considered the taste standard for home-garden bush beans. Pods average 6", fill slowly with tender plump beans. Very high yields. Not heat tolerant, but excellent for fall crops in areas with very hot summers. Introduced by Asgrow in 1964 as a bush variety of the famous Blue Lake pole bean. White seed. Resistant to CBMV, NY 15. ③

238 ***A**: 2oz, $4.25* ***B**: 8oz, $8.60* ***C**: 1#, $11.00*
***D**: 5#, $38.00* ***E**: 10#, $64.00*

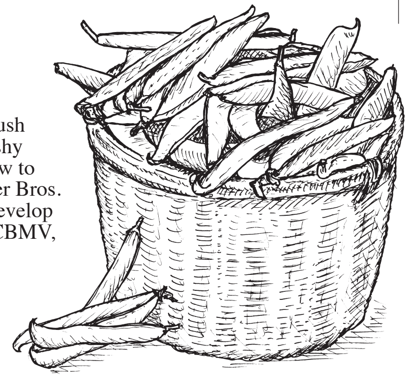
Red Tail - Organic (58 days) OP. We were pleased last year to take part in the commercial release of this excellent deep green bush bean from bird lover and EarthWork Seeds plant breeder Dr. John Hart, who named the bean "to inspire awareness of the complex interactions between agriculture and wildlife." In our fierce parched summer 2020 trials, this 5½" long green bean captured our taste buds with its crisp texture, sweet flavor and unique floral notes. Having aced our follow-up trial in wildly fluctuant 2021 conditions, Red Tail's high yield and quality despite stress should make it as broadly adapted as its namesake raptor. White seed. High resistance to CBMV and CTV. Intermediate resistance to R. ☙2022. **Breeder Royalties.** ④

241 ***A**: 2oz, $5.75*
***B**: 8oz, $10.75*
***C**: 1#, $17.50*
***D**: 5#, $69.00*
***E**: 10#, $120.00*

ROMA TYPES

Greencrop (53 days) OP. An early flat-podded Romano type especially adapted to the North. Pods can grow up to 8" long while still retaining good quality. Bred by Albert F. Yaeger and Elwyn Meader at University of New Hampshire. 1957 AAS. White seed. Tolerates CBMV. ③⑤

214 ***A**: 2oz, $4.00*
***B**: 8oz, $7.50*
***C**: 1#, $10.50*
***D**: 5#, $35.00*
***E**: 10#, $57.00*



Roma II (59 days) OP. True flat bush Romano offers heavy yields of fleshy medium-green 5" pods that are slow to develop seeds. Introduced by Roger Bros. in 1978. A small percentage will develop runners. White seed. Resistant to CBMV, NY15. ②③⑤

246 ***A**: 2oz, $4.50*
***B**: 8oz, $10.50*
***C**: 1#, $15.00*
***D**: 5#, $48.00*
***E**: 10#, $81.00*

PURPLE BUSH BEAN

Royal Burgundy - Organic (55 days) OP. Straight 5" meaty purple pods turn bright green after two minutes of blanching. Less foliage than Royalty Purple Pod. Grows well even in cold conditions. Released in 1976. Light brown seed. Resistant to CBMV, NY 15, PM. ①

225 ***A**: 2oz, $4.75* ***B**: 8oz, $9.50*
***C**: 1#, $16.50* ***D**: 5#, $65.00*

BUSH WAX BEANS

Gold Rush - Organic (54 days) OP. Tender 5–6" straight round stringless beans of this standard early variety have excellent flavor and high yields. Concentrated sets of yellow pods with green tips hold well on vigorous plants. Your market customers won't pan this gold! 1980 AAS winner. White seed. Tolerates CBMV. ①

265 ***A**: 2oz, $4.65* ***B**: 8oz, $9.00*
***C**: 1#, $14.00* ***D**: 5#, $58.00*
***E**: 10#, $110.00*

Golden Butterwax - Organic (56 days) OP. A white-seeded wax bean impressive for its rich yellow color and straight pods. Extra beany. Introduced by Agway in 1978. Resistant to CBMV, NY15, tolerant to ozone damage. ①

269 ***A**: 2oz, $4.50* ***B**: 8oz, $12.00*
***C**: 1#, $20.00* ***D**: 5#, $64.00*
***E**: 10#, $105.00*

Dragon Langerie - Organic (57 days) OP. Also known as Dragon's Tongue. Tasty attractive 19th-century heirloom hails from the Netherlands. Compact stocky bushes bear abundant purple-violet flowers followed by flat 6" creamy yellow pods mottled with purple tiger stripes. Sunlight intensifies color, so plant rows farther apart than normal bean spacing so interior sets become vivid. Crisp, stringless and amazingly juicy when eaten fresh. Cook or market promptly after picking; turns rubbery and loses snap when stored. Not recommended for freezing. Loses purple coloration in cooking. Seed purplish brown with blue stripes. ①

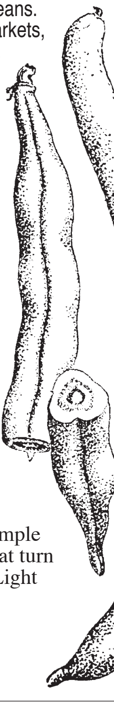
271 ***A**: 2oz, $5.25* ***B**: 8oz, $10.25* ***C**: 1#, $17.00*
***D**: 5#, $60.00* ***E**: 10#, $108.00*

BUSH HARICOTS VERTS

Avg 70-125 seeds/half oz packet. Half oz packet sows 10-16 ft; 1 lb, 320-500 ft.

Haricot vert is French for green bean. Also called filet beans. This gourmet type can command a premium in high-end markets, but are also reliable and suited to the fancy home gardener. Seeds are smaller than those of regular bush beans, and the slender tender pods take less time to cook. For optimal flavor and texture, pick often and when pods are thinner than a pencil. Picking interval should be 48 hours or less.

Be sure soil temps have reached optimal range (60–80°) before seeding.



Montpellier - Organic (57 days) *Not available in 2024. We'll try again next year!*

Masai (58 days) *Dropping all ⑥ suppliers!* Try **249** Maxibel—we prefer it!

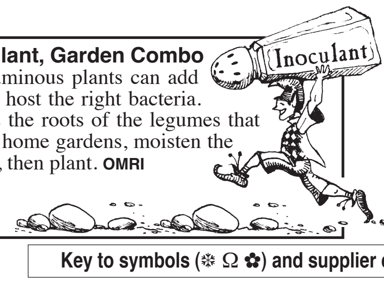
Maxibel - Organic (61 days) OP. A heavy producer of uniform dark green fancy 6–8" pods of exceptional length, ramrod straightness and superb taste. For maximum tenderness and most succulent flavor pick the bushes early and often. A gourmet market specialty. White flowers, speckled brown seed. Resists ANTH and CBMV. ①

249 ***A**: ½oz, $3.00* ***B**: 2oz, $5.50*
***C**: 8oz, $10.50* ***D**: 1#, $16.00*
***E**: 5#, $65.00* ***K**: 10#, $120.00*

Velour Purple Filet (62 days) OP. Velour delivers ample harvests of slender straight bright 4–5" purple pods that turn green when blanched. Upright medium-sized plants. Light brown seed. Resistant to CBMV and HB. ⑤

254 ***A**: ½oz, $3.75* ***B**: 2oz, $6.50*
***C**: 8oz, $19.00* ***D**: 1#, $28.00*

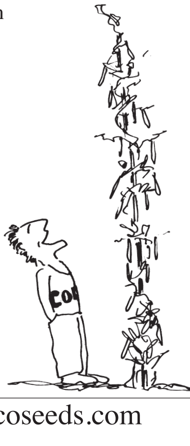
Exceed® Superior Legume Inoculant, Garden Combo



For beans, peas and sweet peas. Leguminous plants can add nitrogen to the soil—if their roots can host the right bacteria. This combination of strains inoculates the roots of the legumes that most farmers and gardeners plant. For home gardens, moisten the seed slightly and sprinkle on inoculant, then plant. **OMRI**

798 ***A**: treats 8#, $6.25*
***B**: treats 50#, $10.00*

Darn it! Why are my bush beans vining like pole beans?



The main reason many of us plant bush bean varieties is so we don't have to construct trellises, so it can be frustrating when a bush bean starts vining. You might blame this unexpected behavior on an off-type or a seed issue. Nope. Growing conditions can trigger vining. All bush beans were bred from pole beans, and under certain circumstances their ancestral vining trait awakens. Inadequate sunlight, high-nitrogen soil or excess water can all cause a bush bean to take off like a pole-ster.

Plant beans in full (or almost full) sun; don't go crazy with the fertility; avoid overwatering; and consider doing a soil test to make sure you have a good balance of available nutrients. And if your bush beans vine anyway, avert a tangle by gently snipping off runners to encourage plants to branch and bush out.

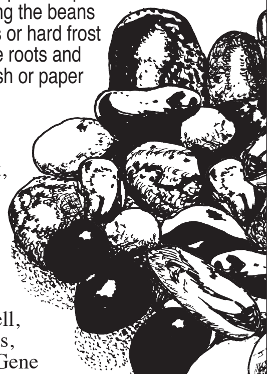
Key to symbols (❄ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

SHELL AND DRY BUSH BEANS

- Avg 130 seeds/2 oz pkt; 1000 seeds/lb. 2 oz packet sows 25 ft; 1 lb, 200 ft.

Culture: Harvest at shelling stage when beans are plump inside pods. For dry beans let pods dry hard on the vine until pressing the beans with your fingernail leaves no indentation. If heavy rains or hard frost threaten before full dry maturity, either pull plants by the roots and hang them in a dry place to finish; or pick pods into mesh or paper bags and finish drying them indoors before threshing.

See page 8 for general bean cultural instructions.



PB&J Nebula Gene Pool OP. As seed keepers, students at Troy Howard Middle School in Belfast, ME, rogue out any bean crosses as they shell heirloom varieties each fall. As plant breeders, they can't resist growing out those crosses to see what happens! Dubbed "weirdo beans," these glorious mutts spin out a ragtag rainbow of patterns, habits and ancestral forms. Like middle schoolers, they are colorful, unpredictable and, well, kinda weird. From the ranks of these hybrid misfits, Troy Howard proudly presents the PB&J Nebula Gene Pool! Lightly selected for vigor, yield, disease resistance and bush habit, but maintaining a high degree of diversity, these beans outyield almost all the other beans in the school's collection. Parentage includes a bean called Tarahumara (presumably from the Rarámuri of Mexico, though the lineage is not certain), Bumblebee, and unknown others. The predominant forms are a range of peanut-butter browns and a constellation of jelly-colored nebular swirls with unexpected variations here and there. Great potential for selecting out new varieties—just keep them free under the OSSI pledge! F5 generation. Seeds grown and packed by the students—we split the proceeds. OSSI pending. ① **NEW!**

293 ***A**: 1/2 oz, $4.00*

Limelight (60 days shell, 85 days dry) OP. A versatile variety, excellent both as a shell and a dry bean. Plants benefit from loose trellising to avoid possible lodging. They set light green to white seeds similar in shape, color and taste to baby limas, except much easier to grow in our climate and sweeter with a buttery texture. Developed in Alberta, Canada, for growing where it is too cold to mature baby limas, and released in 1968. *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

Black Coco - Organic (60 days shell, 85 days dry) OP. A triple-treat bean that is a joy to grow because it is so easy. 2' plants set abundant 5" round pods of plump shiny black seeds that resist shattering in the garden, yet are easy to shell. Coco can be harvested young as a green bean. Ten days later it's a good shell bean, but really comes into its own as a refried or soup bean. Larger than other black beans—and early! Cooks quickly with a delicious aroma that promises a hearty robust soup. A French heirloom with likely primary origin in the Rio Coco area of Nicaragua and Honduras. Did not become popular until the mid-1900s when the French overcame their aversion to the way these beans impart their color to other ingredients in a dish. ①

334 ***A**: 2oz, $4.75* ***B**: 8oz, $12.00* ***C**: 1#, $18.00*
***D**: 5#, $68.00* ***E**: 10#, $116.00* ***K**: 25#, $255.00*

Tiger's Eye - Organic (65 days shell, 85 days dry) OP. Also called *Pepa de Zapallo*, commonly translated as 'pumpkin seed' but might be 'fat seed' or 'fool's seed.' Originally from Argentina and Chile. Among the most beautiful of all beans, bright golden ochre with maroon swirls and a smattering that are maroon with golden speckles. That would be reason enough to grow them, but they also make superb fresh shell and delicious baked beans with rich full-bodied flavor. A good pinto substitute: the tender skins pretty much disappear upon cooking. Wide 4" pods fill with large flattened kidney-shaped seeds mostly white at the shell stage but taking on more yellow as they dry. Bush plants grow 2' with a slight tendency to vine. ①

341 ***A**: 2oz, $5.00* ***B**: 8oz, $13.50*
***C**: 1#, $18.00* ***D**: 5#, $69.00*

Fast Lady Northern Southern Cowpea - ECO (65 days shell, 90 days dry) *Vigna unguiculata* OP. This small white cowpea, or Southern pea, was bred to be Northern- and Southern-adapted, to mature quickly in cool summers, and to tolerate cold night temperatures. The easy-to-pick, easy-to-shell 7–8" yellow pods grow upright on bushy semi-erect plants that impede mold. Pick these fast ladies early for shellies, or let them fully mature into dry beans. As dry beans they have a creamy texture, delicate skins, and cook quickly without soaking. Besides the usual uses, they can be puréed into sweet sauces and dips. Beautiful yellow flowers attract pollinators who feast on the nectar. Bred by Carol Deppe. **OSSI. Breeder Royalties.** ①

321 ***A**: 1/2 oz, $3.75*

Taylor Dwarf Horticultural (68 days shell) OP. Also known as Speckled Bays, this bush shell bean has been a traditional regional favorite since before 1800, producing cream-colored pods early. These are ready to shell when carmine-red splashes appear. Shell right after picking, boil until tender (30–45 minutes) and mix with olive oil, chopped garlic and parsley for a late summer treat. Buff seed with red stripes. ③⑤

326 ***A**: 2oz, $3.00* ***B**: 8oz, $6.50*
***C**: 1#, $10.00* ***D**: 5#, $35.00*

Silver Cloud Cannellini - Organic (70 days shell, 90 days dry) OP. An improved Cannellini with an upright bush habit bred by Washington State U. Green with bright pink streaking, Silver Cloud's short fat 5–6" pods contain five plump white seeds instead of the eight skinny ones found in most cannellini pods. The overall appearance is more like that of a **326** Taylor Horticultural bean than of a typical white kidney bean. These make amazingly early and absolutely superb shell beans, "incredibly good, especially in a salad with bleu cheese dressing," says Sylvia Loomer of Aberdeen, WA. When dried and cooked, its smooth meaty texture and dense nutty flavor are prized in minestrone and other soups and stews. Resists CBMV, CTV, tolerates R. ①

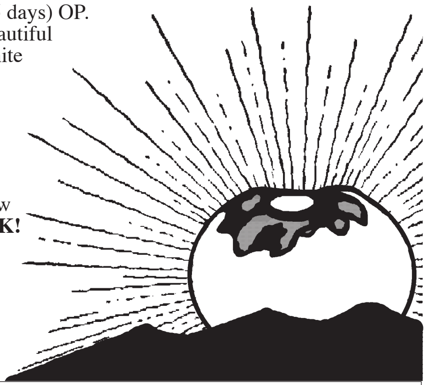
331 ***A**: 2oz, $4.60* ***B**: 8oz, $10.65* ***C**: 1#, $18.10*
***D**: 5#, $65.00* ***E**: 10#, $118.00*

Vermont Cranberry - Organic (70 days shell, 95 days dry) OP. This bush bean is not to be confused with pole bean True Red Cranberry or the pink-flecked Italian Borlotti bean. Early horticultural compendiums list two New World varieties, Dwarf Cranberry and Pole Cranberry, being grown by native peoples in New England. Vermont Cranberry is the Dwarf Cranberry's descendant, probably outfitted with a place name by an enterprising seedsman. A New England tradition since before 1800. Vermont Cranberry's pods contain 5 to 6 speckled cranberry-colored shell beans. Reliable, hardy, easy to shell. Sometimes gets viny. **Indigenous Royalties.** ①

328 ***A**: 1oz, $4.15* ***B**: 2oz, $7.20* ***C**: 8oz, $18.50*
***D**: 1#, $29.00* ***E**: 5#, $80.00*

Maine Sunset - ECO (85 days) OP. A Soldier-type featuring beautiful plump round-oval ivory-white beans irregularly splotched with brownish-maroon splashes around the hilum. A wonderful baking bean with a creamy texture and rich flavor when cooked, comparable to Maine Yellow Eye. Good yielder. ① **BACK!**

337 ***A**: 1 oz. packet.*
Pay what you like!
(See below.)



Maine Sunset: A Seed Without a Price

In last year's catalog we conducted an experiment for the exchange of Abenaki Calais Flint Corn seed. We invited you to read a bit about the seed's history, how it traveled through generations of seed keepers, gardeners, independent breeders, farmers and small seed companies, to you. We challenged you with the question, "How do we put a monetary value on seed, a foundation of life?"

We were touched by how many of you articulated what the corn seed was worth to you. One response in particular spoke to how precious seed is: "It is hard to even suggest a monetary value for an heirloom variety. We think that growing this is like putting down a deposit on the future of food and of diversity. So we weighed an ounce of our 2022 season Painted Mountain corn. We then counted the kernels. There were 95 in an ounce. So we decided to buy this start on the future of Abenaki Calais at a dollar a seed."

In total, customers paid almost $3,400 for this item, at an average packet price of $5.78. The lowest price paid per 1 oz packet was $0 and the highest was $95. We paid $182.82 in Indigenous Royalties to the nonprofit Nibezun, and after we covered our other costs for the seed, the profit went into our Seed Farmers Resilience Fund.

To continue the experiment this year, we are highlighting a different variety, the Maine Sunset Bean. Beans have a long rich history in Maine and the Northeast. Like corn, beans were tended by the indigenous peoples of this land and selected for beauty, adaptability and nutrition. European colonizers quickly adopted beans into their diets, with beans becoming a staple for most New Englanders. A pot of beans could cook all day for Saturday night supper, with leftovers reheated on Sunday to allow the Sabbath day of rest for the cooks. Many churches and town granges still host Saturday night bean suppers. Most of the dry bean varieties we love came from generations of families selecting and cultivating their favorite varieties and passing them to friends and neighbors.

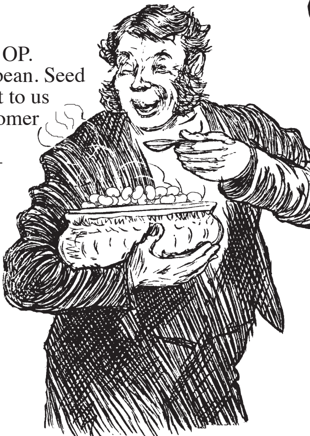
Back in the 1930s, quite near here over on Knox Ridge, a farmer named Bantam passed along some bean seeds he liked to his mailman. Skip ahead to 2015. Former Fedco staffer Megan O'Brien had just bought a farm in the area and wanted to grow local dry beans. She asked Cedric, brother of the prior farm owner, if he'd heard of Maine Sunset. He hedged for a bit—then produced a coffee can of beans. His father was the mailman and his family had been growing the bean all along on that very same land. They found that the beans ripen to the fully dry stage somewhat earlier than other favorites like Jakes and Yellow Eye and were every bit as good when baked.

For several seasons we've struggled to get a good seed crop of Maine Sunset, but this year a grower we partner with in Massachusetts has had success! We are thrilled to offer it outside of the normal monetary structure of capitalism. Once again, any profit we make from this seed will go into a fund to help seed growers who are experiencing climate-change–related crop failures and growing challenges.

Will you grow and save your own seed to start the journey of a whole new generation?

Mitla - ECO (85 days) OP. Hailing from the Mitla Valley of Oaxaca, Mexico, this variety's dense foliage produces medium runners, lavender flowers and good yields of thin delicate pods each containing 5–6 lustrous black seeds. A great crop for new plots, Mitla covers the ground and builds the soil. The great-tasting and nutritious beans are excellent in black bean soup and for refries. Soak before cooking—they may still need to simmer a little longer than other beans. This variety first came to us labeled as a tepary bean, *Phaseolus acutifolius*, but tepary it is not. Acting on a tip from Tim Springston of Oxbow Farm in Erin, NY, we grew it out in 2014 alongside four genuine tepary beans. We found it looked—and performed—clearly different from the true teparies and more like the *vulgaris* species. ①

320 A: 1/2oz, $3.75
B: 2oz, $8.00
C: 8oz, $25.00
D: 1#, $40.00

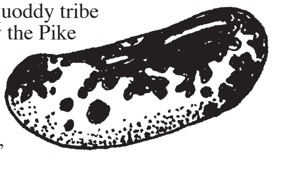


King of the Early (85 days) OP. Beautiful mottled red baking bean. Seed propagated from a sample sent to us years ago by seed-saving customer Linwood Ware. King's ability to ripen early, its utter dependability through hot summers and cool, its capacity to swell enormously when soaked, and its robust flavor won our hearts. We've found King easy to grow and heavy yielding year after year. ①

336 A: 2oz, $4.50
B: 8oz, $11.00
C: 1#, $18.00
D: 5#, $60.00
E: 10#, $110.00

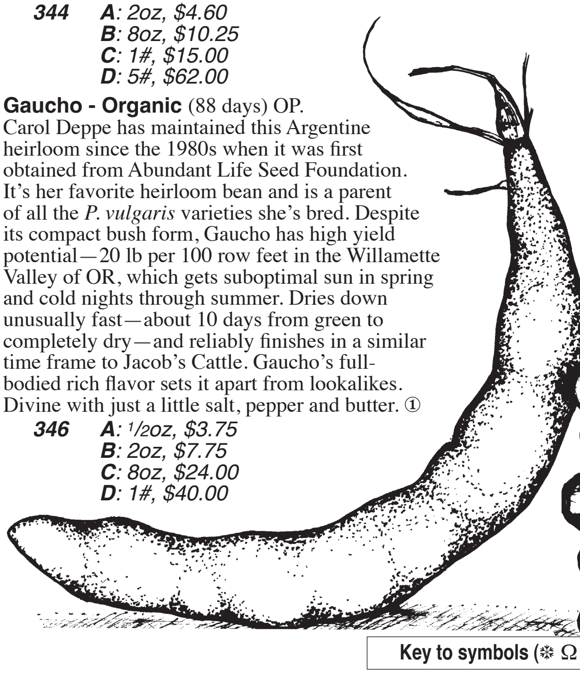
Marfax (86 days) OP. These are the beans served at Sagadahoc MOFGA's famous baked bean, switchel and cider booth at the Common Ground Country Fair. This chapter had vended at all 43 fairs—selling baked beans since 1996—until the pandemic. After a two-year fair hiatus, they were back at it in 2022 and 2023! Heirloom resembling Swedish Brown Bean, but earlier and higher yielding. Richly flavored brown baking bean very well adapted to our cool climate. Golden-tan seed. **Indigenous Royalties.** ①

338 A: 1/2oz, $3.65 B: 2oz, $6.75
C: 8oz, $14.50 D: 1#, $27.00



Jacob's Cattle - Organic (88 days) OP. Popular New England heirloom, often referred to as Jake's, originated with the Passamaquoddy tribe Downeast and long grown by the Pike family of Lubec. As a dry bean, its dark red speckles on white background are said to look like the cattle's markings. If harvested earlier, the kidney-shaped beans make superb shellies. **Indigenous Royalties.** ①

344 A: 2oz, $4.60
B: 8oz, $10.25
C: 1#, $15.00
D: 5#, $62.00



Gaucho - Organic (88 days) OP. Carol Deppe has maintained this Argentine heirloom since the 1980s when it was first obtained from Abundant Life Seed Foundation. It's her favorite heirloom bean and is a parent of all the *P. vulgaris* varieties she's bred. Despite its compact bush form, Gaucho has high yield potential—20 lb per 100 row feet in the Willamette Valley of OR, which gets suboptimal sun in spring and cold nights through summer. Dries down unusually fast—about 10 days from green to completely dry—and reliably finishes in a similar time frame to Jacob's Cattle. Gaucho's full-bodied rich flavor sets it apart from lookalikes. Divine with just a little salt, pepper and butter. ①

346 A: 1/2oz, $3.75
B: 2oz, $7.75
C: 8oz, $24.00
D: 1#, $40.00

White Candle Gaucho - Organic (88 days) OP. When about a plant's-worth of white seeds turned up in 20 lb of Carol Deppe's golden Gaucho beans, she picked them out and planted them. The resulting plants looked identical to Gaucho, with beans the same size and shape as Gauchos but white with a candle pattern on the hila. A recessive mutation present in Carol's Gaucho population must have become homozygous in one plant. What fun! White Candle Gauchos have a milder flavor and the same high yield and agronomic characteristics as Gaucho. The two beans can be planted in the same row—occasional crosses between sister varieties aren't a big deal. Save seeds from plants at the ends of the row and eat the ones that mingle toward the middle! By developing sister lines such as these, Carol is building ease of seed-saving right into the varieties' genetics. **OSSI. Breeder Royalties.** ①

open source seed initiative

347 A: 1/2oz, $4.25 B: 2oz, $9.50 C: 8oz, $26.00

Soldier (89 days) OP. These Soldiers have a clear winnable mission within a defined timetable: to reproduce themselves every year for our mutual benefit! Large drought-tolerant white kidney beans with red-brown figures on the eyes. Also called Red Eye, the "soldier" figure looks something like a toy soldier, or an 18th-c. European soldier. A favorite in colonial Bean Town.

Soldier ①

349 A: 2oz, $3.75 B: 8oz, $9.00 C: 1#, $14.25
D: 5#, $49.00 E: 10#, $85.00 K: 25#, $205.00

Soldier- Organic ① **BACK!**

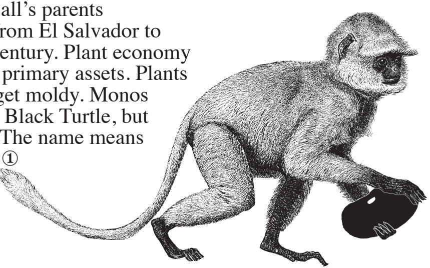
350 A: 2oz, $5.00 B: 8oz, $12.00

Kenearly (89 days) OP. Yellow Eye is one of the signature varieties of Maine bean hole suppers. Kenearly, a selection of Yellow Eye, was developed at the Kentville, Nova Scotia, research station. Very similar to the Maine Yellow Eye strain we once sold, but with slightly larger eye and more uniform maturity. Plump oval medium-sized beans, cream with yellow eye. ①

354 A: 2oz, $3.95 B: 8oz, $8.75 C: 1#, $13.25
D: 5#, $56.00 E: 10#, $105.00

Calypso - Organic (90 days) OP. Also called Orca or Yin-Yang bean. A dramatic find at the 1992 Common Ground Country Fair Exhibition Hall. Its stark black and white markings, uncannily similar to the Chinese symbol, down to the contrasting dot, make this dry bean a favorite of the handmade jewelry crowd. Fedco staffer Emily Skrobis glues them to inanimate objects as googly eyes. Though not as heavy a yielder as King of the Early, Calypso dependably produces 4–5 beans per pod, with a texture similar to Yellow Eye. Doubles in size when cooked. ①

356 A: 2oz, $4.80 B: 8oz, $10.80 C: 1#, $17.50
D: 5#, $65.00 E: 10#, $120.00



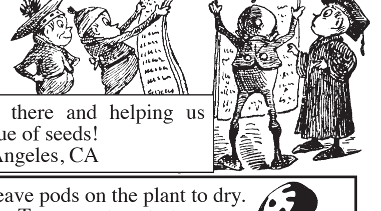
Monos Negros - Organic (90 days) OP. Seed was given to Will Bonsall's parents by friends who immigrated from El Salvador to Vassalboro, ME, in the last century. Plant economy and extreme earliness are its primary assets. Plants sprawl and twine, but don't get moldy. Monos ripens much earlier than **385** Black Turtle, but with not quite as rich flavor. The name means 'black monkeys' in Spanish. ①

358 A: 1oz, $6.00
B: 2oz, $10.00
C: 4oz, $19.00
D: 1#, $55.00

Brown Resilient - Organic (100 days) OP. This productive dry bean has a rich meaty flavor that can stand alone in dishes. Bred by Carol Deppe from Gaucho and Beefy Resilient Grex, a gene pool developed from a cross of Gaucho and Black Mitla—so Brown Resilient is about 3/4 Gaucho and 1/4 Black Mitla. Yields comparable to Jacob's Cattle or Soldier, about 15 lb per 100 row feet. Can produce well in areas with cold spring seasons and summer nights that drop into the 50s. The variety is a mix of bushes and short-vined types. Seeds are 80–90% brown; the rest are gold or black. When Carol tried selecting for a pure brown bush line, she discovered a few things: the lines that had some yellow and black beans had much higher yields than pure brown lines; also, the short-vined types yielded well, could be grown just like bushes, and seemed to be more resistant to drought. As Carol pointedly quips, "If I were intending to get a PVP or patent on my varieties I would have to make a uniform bush version with all brown beans that was wimpier and lower yielding than Brown Resilient. But I'm not and I don't." **OSSI. Breeder Royalties.** ①

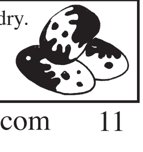
open source seed initiative

365 A: 1/2oz, $4.00
B: 2oz, $9.00
C: 8oz, $22.00

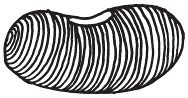


> Thank you for being there and helping us beginners learn the value of seeds!
> – David from Los Angeles, CA

Saving Bean Seed Is Easy! Leave pods on the plant to dry. Hand shell, or stomp pods on a tarp. To ensure true-to-type seed, separate varieties by 30 feet. See page 38 for more about seed saving.



more DRY BUSH BEANS



Red Kidney (102 days) OP. An early-maturing light-red kidney bean developed at Cornell. A favorite for chili and minestrone. Large beans mature at least a week earlier than similar types.

Red Kidney ①

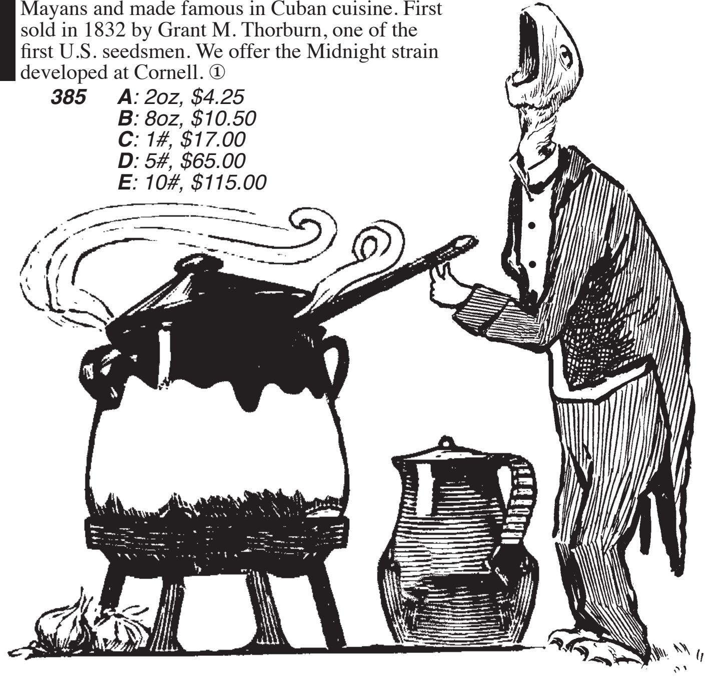
378 ***A**: 2oz, $3.90* ***B**: 8oz, $8.25* ***C**: 1#, $14.00*
***D**: 5#, $49.00* ***E**: 10#, $90.00*

Red Kidney - Organic ①

377 ***A**: 2oz, $4.95* ***B**: 8oz, $9.95* ***C**: 1#, $15.00*
***D**: 5#, $65.00* ***E**: 10#, $122.00*

Black Turtle - Organic (102 days) OP. A modern upright bush version of the Central American heirloom. Small black beans with rich spicy flavor popular for soup were known to the Mayans and made famous in Cuban cuisine. First sold in 1832 by Grant M. Thorburn, one of the first U.S. seedsmen. We offer the Midnight strain developed at Cornell. ①

385 ***A**: 2oz, $4.25*
***B**: 8oz, $10.50*
***C**: 1#, $17.00*
***D**: 5#, $65.00*
***E**: 10#, $115.00*



Saturday Nite Special - ECO (105 days) OP. Legendary UNH plant breeder Elwyn Meader was hired by famous Maine baked bean company B&M (founded 1867) to breed a pea bean that would bake well and have a season short enough to grow in Maine. B&M lost interest when it was bought out by the William Underwood Corporation in 1965 so the bean was never introduced to the public. Preserved by Elwyn's son John as X-3, this small pure-white pea bean is early, impressively productive and cooks well. Short sturdy plants bear more than 20 pods each and "dry down nice." John, recalling his father's knack for naming cultivars, suggested that Elwyn might have called it Saturday Nite Special in honor of traditional Maine bean suppers and their explosive aftereffects! So we did. ❧2009 ① *We're not sure yet when this seed crop will arrive. Check website for availability.*

Quincy Pinto - Organic (106 days) OP. Although maturing on the later side, the large speckled tan beans come through with good yield—and do so even in stressful conditions. When slow cooked, the dry beans have a good creamy flavor, perfect for a midwinter comfort meal. The upright bush plant with short vines does a nice job shading weeds, which our grower says "is always helpful for organic production." A joint release of Washington State U with the USDA, Quincy has gained a reputation as the first commercial pinto with resistance to the seedborne NY 15 and CBMV, spread between plants by aphids. Does not resist R. Intermediate resistance to CTV. ①

367 ***A**: 2oz, $4.25* ***B**: 8oz, $13.00*
***C**: 1#, $20.00* ***D**: 5#, $75.00*

POLE BEANS

- Avg 30 seeds/half oz packet. 775-1500 seeds/lb. Half oz packet sows 7–10'.
- Days to maturity are from emergence after direct sowing.

Culture: Though it can be fun to grow "climbing" beans on tripods or sunflowers, many folks grow them on 6–8' fencing. Plant 3–4" apart along the fence. Many pole bean varieties have strings that won't annoy you if they're picked early and often. Frequent and thorough picking keeps vines vigorous and productive. Compost the overgrown pods that got away, or cut them coarsely and add them to minestrone. If you don't pick them, your plants will stop producing, satisfied they've fulfilled their reproductive mission.

One customer says, "Many people—even gardeners and cooks—have no idea how much better-tasting pole beans are. Most bush beans are cardboard by comparison."

Multicolored Pole Bean Blend (60-72 days) OP. Plant a pole of polychromatic pods! We combine green, yellow, purple and striped varieties of staggered maturity into one packet. Great for those who want a diverse selection but have room for only one or two poles, and for CSAs who want to put a whole rainbow into each box. Varieties will vary from year to year according to availability.

297 ***A**: 1/2oz, $5.00* ***B**: 2oz, $8.00*
***C**: 8oz, $26.00* ***D**: 1#, $35.00*

Seychelles - Organic (55 days) OP. 2017 AAS winner Seychelles produces a flood of 5–6" stringless round-podded very dark green fresh beans. The deep pod color is mirrored in the lush healthy foliage. Climbing 7–9', vines set early and steadily as they grow with multiple beans ripening simultaneously on trusses for easy grab-n-go picking. Our supplier recommends either trimming any growth above the top of the trellis or staking to promote bushier habit and pod set lower on the vine. Decent fresh eating, and meaty and mild when cooked, with green pods that don't fade. Quick to bear even in cold and wet conditions, seeds slow to develop, and good eating over a long season. Might just turn reticent bush-bean lovers into pole-sters. Resists CBMV and ANTH. **PVP.** ②

278 ***A**: 1/2oz, $3.75* ***B**: 2oz, $8.50* ***C**: 8oz, $17.50*
***D**: 1#, $28.00* ***E**: 5#, $110.00*

Northeaster - Organic (55 days) OP. Also known as Kwintus. We can never grow enough seed for this superior pole bean that ripens almost two weeks earlier than Kentucky Wonder. Somewhat flattened pods are slow to get tough even when big. Usual length is 7–8". Flavor improves with blanching. Loses some vitality after several pickings. If you wish continuous production of pole beans till frost, make a second planting of Northeaster in July for September harvest, or sow a later variety like Kentucky Wonder as well. White seed. About 50 seeds/oz. ①

280 ***A**: 1/2oz, $3.25* ***B**: 2oz, $7.00* ***C**: 8oz, $21.00*
***D**: 1#, $36.00* ***E**: 5#, $130.00*

Golden Gate - Organic (60 days) OP. Impressive for its pods' 10" span, they are nevertheless dwarfed by the 4200' main span of the bridge for which this bean was named. These tall vines require a high stout stake, though nothing comparable to the bridge's 746' towers. The large flattened Romano-type beans turn **sunny yellow** at 5", have best eating quality at 6–8", but remain tasty and stringless up to 10". Highly productive, and they freeze well. Our tasters found them "sweet and tender" with a "nice creamy texture" when cooked; our gardeners appreciate that the yellow beans are easy to spot when they're ready to pick. White seed. ②

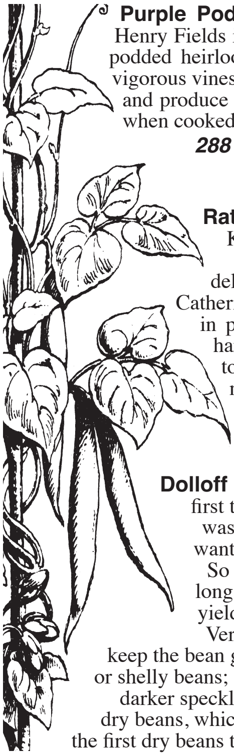
281 ***A**: 1/2oz, $6.00* ***B**: 2oz, $14.75* ***C**: 4oz, $25.50*
***D**: 8oz, $41.00* ***E**: 1#, $75.00*

Fortex (60 days) OP. Long an industry standard for pole beans, Fortex begins producing relatively early and keeps going into fall, long after others have quit. Its flavor and texture reign supreme, a distinctive nutty taste that can be enjoyed raw or cooked, with a tenderness retained even when the beans are very mature. Although the medium green pods may be harvested at 6–7" for gourmet filet beans, they still have good quality and sweetness without strings at 10", and sometimes can grow even longer. Vines stand up to repeated pickings, achieving impressive yields. Pricey walnut-brown seed is worth every penny. *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

Monte Gusto (58 days) *Dropped—lack of demand.*

Kentucky Wonder (68 days) OP. "Of all the climbing kinds, we do not believe there is a better one than Kentucky Wonder: it is an old variety with solid meaty pods, 7–9" long…and when cooked no bean is better. It is enormously productive, the pods hanging in great clusters from top to bottom of the pole." So said Stark Bros. in 1921. The splendid nutty flavor holds up even after freezing. As the beans mature, the pods flatten. Pick regularly to maintain quality and production, as they get tough once the beans enlarge. A favorite since the mid-1800s. Also known as Old Homestead, Wonder was given its present name by seedsman James J.H. Gregory in 1877. Brown seeds. ③⑤

285 ***A**: 1oz, $3.00* ***B**: 2oz, $3.75* ***C**: 8oz, $10.00*
***D**: 1#, $15.00* ***E**: 5#, $45.00*



Purple Podded Pole Bean (70 days) OP. Introduced by Henry Fields in the Ozark Mountains in the 1930s, this purple-podded heirloom is favored by old-timers in that region. The vigorous vines climb 6–7', are graced by lilac-colored blossoms, and produce copious tender bright purple pods that turn green when cooked. Included in our multicolored pole bean blend. ③

288 *A: 2oz, $3.75* *B: 8oz, $7.75*
C: 1#, $11.25 *D: 5#, $35.00*
E: 10#, $55.00

Rattlesnake (70 days) OP. "I've always been a Kentucky Wonder girl but got Rattlesnake for a substitute and am I ever glad. These beans are delicious fresh and frozen—beautiful, too," avers Catherine Hall of Ellsworth, ME. Called Preacher Bean in parts of the South, Rattlesnake produces a good harvest of juicy 6–7" pods with purple streaking said to resemble the markings of a rattlesnake. We've noted a most pleasing mushroomy aftertaste to the fresh beans. Tan seed with dark stripes. ③

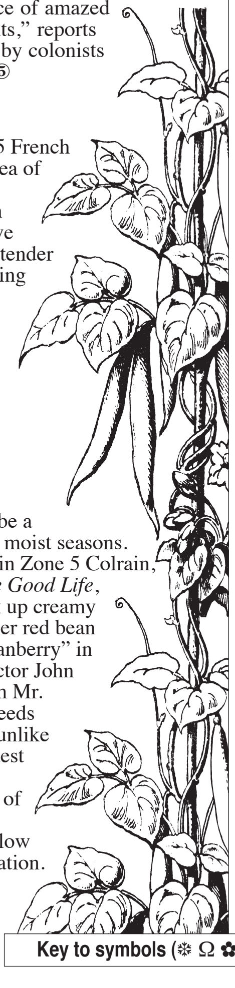
292 *A: 2oz, $4.85* *B: 8oz, $12.15*
C: 1#, $16.25 *D: 5#, $40.00*

Dolloff Pole - ECO (70 days shell, 90 days dry) OP. The first time Nikos cooked up a mess of Dolloff beans she was hooked: rich, substantial, meaty—everything she wanted in a bean and especially good in a hearty soup. So she wasn't surprised to learn this variety has been long grown and selected in the Northeast for abundant yields of dry beans in cool short seasons. Named after Vermonter Roy Dolloff of Burke Hollow who helped keep the bean going. Prior to full maturity they make tasty green or shelly beans; at shell stage the beans are light salmon pink with darker speckles. It's worth waiting for the light chestnut-brown dry beans, which are wide and flat like limas. Consistently one of the first dry beans to mature—in 2021 Dolloff finished just under the wire of a September 11 frost. Those who have trouble maturing dry pole beans will find Dolloff the closest thing to a cinch. ①

362 *A: 1/2oz, $3.50* *B: 2oz, $8.50*
C: 8oz, $19.25 *D: 1#, $32.00*

Scarlet Runner (70 days snap, 95 days shell) *Phaseolus coccineus* OP. Climbing beans often grown as ornamentals for their brilliant scarlet blossoms that attract hummingbirds. Need trellises, fences or poles; will grow to 10–12', perfect for shading a porch. Gorgeous purple and black mottled seeds may be the most exquisite in our catalog, rivaling Job's Tears (which we need a new grower for!) "There is nothing like the face of amazed surprise when a child opens the pods from these plants," reports Anne Elder. Heirloom variety grown as early as 1750 by colonists and in 1791 for Thomas Jefferson. ~20 seeds/oz. ✿ ③⑤

318 *A: 1oz, $3.95* *B: 2oz, $5.25*
C: 8oz, $10.75 *D: 1#, $16.25*



Blue Coco - Organic (72 days snap) OP. A pre-1775 French heirloom with likely primary origin in the Rio Coco area of Nicaragua and Honduras. With chocolate-colored seed coats, bluish-purple pods, and green leaves tinged with purple, vining Coco makes a handsome plant. Can serve as a snap, shell or dry bean. Slightly curved pods with tender strings flatten as they age. Mild and sweet with a pleasing meaty flavor and nutty aftertaste. Can be harvested at 3" as **filet** beans, remain tender to 5" without getting stringy. Pods turn green when blanched. Freezes well. Supposedly tolerant of both heat and drought, its production slacked off in hot dry weather, recovering upon the return of rain and more temperate nights. ①

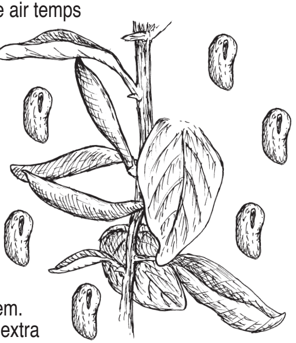
295 *A: 1/2oz, $3.50* *B: 2oz, $6.25*
C: 8oz, $18.50 *D: 1#, $26.00*
E: 5#, $100.00

True Red Cranberry - Organic (102 days dry) OP. Although one of the very best baking beans, TRC can be a difficult seed crop to mature, especially finicky in cool moist seasons. Despite a dry fall, CR's weren't dried down till Oct. 6 in Zone 5 Colrain, MA. Garden writer Michele Owen, author of *Grow the Good Life*, says, "I love chili, and True Red Cranberry beans cook up creamy without disintegrating with a richer flavor than any other red bean I've ever tasted." Inspired by a description of "Red Cranberry" in a 1700s gardening encyclopedia, legendary bean collector John Withee, after an 11-year search, finally obtained it from Mr. Taylor of Steep Falls, ME. The plump round maroon seeds without streaking look like Thanksgiving cranberries, unlike the speckled oval bush cranberry types. One of our oldest varieties, listed in the 1928 *Beans of New York*, which quoted the early explorer Lescarbot who called it "one of the beans planted before 1612 by the Indians of Maine growing their corn." True Red Cranberry is listed on Slow Food's Ark of Taste. Soak seed 24 hours to aid germination. About 40 seeds/oz. **Indigenous Royalties.** ① **BACK!**

371 *A: 1oz, $4.75* *B: 2oz, $7.65*
C: 8oz, $22.00 *D: 1#, $36.00*
E: 5#, $125.00

FAVA BEANS *Vicia faba*

- Avg 35 seeds/2oz pkt, 280 per lb. Also called broad beans and horse beans.
- Days to maturity are from emergence after direct sowing.



Culture: Favas tolerate frost and prefer daytime air temps below 75°. More heat can cause poor pod set, while in cooler climates a second flush can appear. Don't delay: sow the large seeds 3–4" apart as early as peas. Usually harvested when the 2–3 light green beans in the 3–6" glossy pods reach the green shell stage—shelled beans can be squeezed out of their membranes after parboiling.

Staffer Emily Skrobis contests the need to peel each bean. She says, "I'd recommend that for dried favas, but fresh is another story. You lose a lot of flavor and food (and time!) that way. Keeping the membranes on alters the texture, of course, but I still thoroughly enjoy them. Homesteading is a lot of work and I try to avoid extra steps in processing, and so I decided to just get used to keeping on all tomato skins and fava membranes." To avoid this issue altogether, you can harvest them young when pods and membranes are still tender.

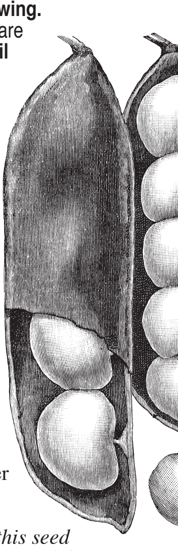
Favas are mainstays in many cultures from ancient Rome to modern-day Mexico, Egypt, Sudan, the Middle East, Brazil and India. Many cuisines feature the dried bean. Rich in fiber and iron and highest of all beans in protein. You can even eat the leaves!

Windsor (75 days) OP. The classic heirloom variety, listed by Fearing Burr in *Field and Vegetable Gardens of America* in 1863. Nikos boils the shelled beans in salted water—this simple dish was the hit of every summer potluck. Tall bush habit—may want support as the hefty pods ripen. Brown seed. ③⑤

298 *A: 2oz, $4.00* *B: 8oz, $8.95* *C: 1#, $12.50*
D: 5#, $35.00 *E: 10#, $61.00* *K: 25#, $138.00*

LIMA BEANS *Phaseolus lunatus*

- About 65 seeds/oz.
- Days to maturity are from emergence after direct sowing.



Culture: Limas require more heat than green beans and are indifferent performers in cold wet summers. **Minimum soil temperature 60°, optimal range 70-85°.** Plant as other bush or pole beans. Bush limas can be prone to twining. Harvest at shelling stage when beans bulge in fading pliable pods, before pods start to dry out.

Winfield - Organic (95 days) **Pole type.**
Unavailable in 2024. We need more seed stock!

Packer's - Organic (100 days) OP. **Bush type.** Last offered in 2017, the opening sentence of our description was written in 1999: "With global warming apparently bringing later fall frosts to our region, limas are becoming a better bet." Packer's was the clear winner among a dozen contestants in our original trial way up north in Parkman, ME. In defiance of the chilly location, its branching bush plants were laden with 3" flat pods that matured in profusion. Our recent taste-tester found these small beans to be a "satisfying delicious blend of mealy and oily, with good bean flavor." Another said, "Almost too sweet and savory." If you've never experienced fresh baby limas right from the garden, you won't believe how delicious they can be. Light green-white seed. **BACK!** *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

Jackson Wonder (103 days) OP. **Bush type.** U.P. Hedrick in 1931 in *The Vegetables of New York* called it "the hardiest of all bush limas, very productive." In his *100 Vegetables and Where They Came From*, William Woys Weaver highly praised Jackson Wonder for baby pods that are so tender they can be cooked like snow peas, and mature beans handsome enough to use as beads. Introduced in 1888, Atlanta farmer Thomas Jackson's drought-tolerant variety created a sensation for its productivity, even though it stands only 18" tall. Wonder features about 3 seeds per curved 3" pod, grey in the shell stage and drying to buff with lovely purple and black mottling, as succulent as they are decorative. Its sweet-smelling white flowers attract butterflies. Avg 950 seeds/lb. ✿ ③⑤

324 *A: 2oz, $4.25* *B: 8oz, $9.25* *C: 1#, $13.25*
D: 5#, $50.00 *E: 10#, $95.00*

King of the Garden (106 days) OP. **Pole type.** Also known as Henderson's Leviathan, for those with a season long enough to grow pole limas. Developed from a cross between Large White and Dreer by Frank S. Platt in 1883. Platt selected five- and six-seeded Large White pods so that King's long flat 8" pods dependably produce at least 4 large creamy-white seeds of splendid quality over an extended harvest period. Gregory called them the standard late pole lima and advised in his 1917 catalog that the plants are extremely vigorous so that "no more than two should be allowed to grow to a pole." Indeed, the vines can grow 10' high on fertile ground! *Caution: Not adapted to northernmost areas.* Avg 480 seeds/lb. ⑤

325 *A: 2oz, $4.00* *B: 8oz, $8.50* *C: 1#, $13.00*
D: 5#, $45.00 *E: 10#, $76.00*

Key to symbols (❆ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

MISCELLANEOUS BEAN

Red Noodle Yard Long (90 days fresh) *Vigna unguiculata sesquipedalis* OP. A pole or two of these, with their long pencil-thin 14–18" cascading burgundy pods, makes a stunning garden entrance that draws people in and excites curious inquiries. Not the earliest of Yard Long beans, an Asian specialty, but surely the most spectacular. An indifferent performer in chilly Central Maine, Noodle loves heat and moisture. Keep it picked to sustain production. Intriguing strong unique indescribable flavor is brought out best by dry-frying in a hot wok with peanut oil, garlic and soy sauce. Stringless and most tender when young and thin. Must be trellised. About 200 seeds/oz. ② *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

SOYBEANS *Glycine max*

- Avg 40 seeds/half oz pkt.; 160 seeds/2 oz.; 1200 seeds/lb.
- Days to maturity are from emergence after direct sowing.

Culture: Very sensitive to cold—be sure frost danger has passed, and **soil temps have reached 65–80° before seeding.** Plant 3–4" apart. Can tolerate dry soil prior to blooming, but needs water during the pod-filling stage.

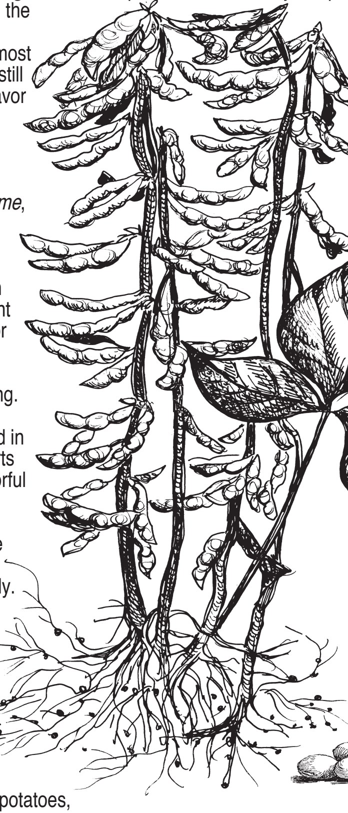
For fresh eating, harvest when most of the pods have expanded but are still green without yellowing. For best flavor harvest in the evening. To save seed, leave some pods on the plants and wait till stems dry and most of the leaves drop.

The Japanese call them *edamame*, meaning 'beans on branches,' and boil and salt them like beer nuts. Edamame are rich in vitamins A, C and E, calcium, phosphorus, protein and fiber. Encouraged by their recent popularity, breeders are selecting for larger pods with sweeter beans.

Steam or boil the pods for 4–5 minutes, chill quickly for easy shelling. Pods can be parboiled and frozen. Staffer Emily wasn't much interested in edamame until she froze a few quarts for winter. "Wow, they are rich, flavorful and taste so vibrant and alive!"

Fresh-market growers often cut off plants near the base, remove the leaves and bunch into 1 lb units, rather than pick each pod individually.

Seedsman Tom Vigue plants edamame in the same furrow as his sweet corn. He thins each to one plant per row foot and suffers little yield loss from either crop: the soybeans are a gift. He sows a living mulch of forage radish that takes off after both main crops are dead. He follows the next year with potatoes, which benefit in rotation from all three of these crops.



Tankuro - Organic (90 days) OP. In Japan, black-seeded edamame varieties are deemed to have a richer and sweeter flavor than green or tan kinds. Tankuro was the winner for productivity and pleasing flavor in our initial trial to find the best black-seeded variety. In exceptional heat, our May 25 planting produced robust 3' plants loaded with pods packed with an average of 2.4 beans each. They began ripening Aug. 17, the same day as Shirofumi. Harvest would be 1–2 weeks later in a season with average heat. Pick promptly when the immature seeds are bulging yet the pods are still dark green, before the plants begin to yellow. Those pods that you miss will dry down, maturing beautiful black pearls that can provide your next year's planting stock. ①

488 ***A**: 1/2oz, $3.75* ***B**: 2oz, $10.00*
***C**: 8oz, $20.00* ***D**: 1#, $33.00*

Shirofumi - Organic (91 days) OP. Vigorous thigh-high vines make early concentrated sets of light green pods, averaging two beans per pod. The 10-day picking window is generally from late August through early September. An excellent substitute for limas in short-season areas. Our stock seed came from Tom Vigue, who did considerable trials and selection work with this crop. Beth Rasgorshek of Canyon Bounty farm has carried on his work for years. Resists ANTH, CBMV. ①

491 ***A**: 1/2oz, $3.75* ***B**: 2oz, $10.00* ***C**: 8oz, $22.00*

Chiba - Organic (83 days) OP. This edamame soybean packs a lot of flavor and production into 2' compact plants. Dark green pods hold their color well and the large beans have exceptional soybean flavor when eaten fresh: "soft, sweet, nutty, almost milk-like, yum" was how our trial eaters described it. Picking can be staggered over a short 10-day harvest window as they ripen from the bottom of the plant to the top. They are widely adapted and have a high percentage of 3-seeded pods under optimal conditions. Great for small gardens. ① *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

BEETS

Beta vulgaris

- About 800-3600 seeds/oz, with variations. 1/8 oz packet sows 20 ft; 1 oz, 160 ft.
- Days to maturity are from emergence after direct sowing.

Culture: Spring or fall, beets are hardy and easy to grow. Can be sown almost as soon as ground can be worked in spring. **Minimum germination temperature 40°, optimal range 60–85°.** For full-sized beets, you must thin to at least 3" apart. Early thinnings make good salad greens; baby-beet thinnings cooked with tops are a Yankee delight!

Diseases:

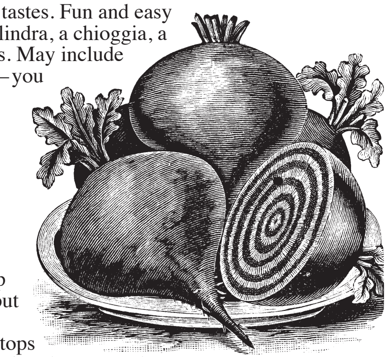
PM Powdery Mildew DM Downy Mildew

CLS Cercospora Leaf Spot looks like someone shot a series of small target-like circles in the foliage. Prolonged periods of rainfall and high humidity exacerbate this disease. In serious cases the spots darken and extend. Rotating crops, removing plant debris, and wider spacing to ensure adequate air circulation are preventive measures.

Scab, the same disease that afflicts potatoes, causes rough brown spots on the skin. Adequate watering is a preventive.

The Bold and the Beautiful Beet Blend You won't miss a beet with this range of colors, shapes and tastes. Fun and easy to grow. Includes a yellow, a cylindra, a chioggia, a white, and one with great greens. May include hybrids. Pickled, fried, roasted—you can't beat this diversity in your culinary storehouse.

2190 ***A**: 1/8oz, $4.00*
***B**: 1/2oz, $6.75*
***C**: 1oz, $11.50*
***D**: 4oz, $30.00*
***E**: 1#, $105.00*



Robin (40 days) F-1 hybrid. Of baby-beet class and short-top type, Robin's vigor and health put wimpy competitor Babybeat to shame. This Boy Wonder's 10" tops show a nice contrast between dark red stems and disease-resistant dark green leaf. Add deep red 1–2" round beets, and Robin packs a visually powerful punch, …I mean bunch, at market. Even better, its uniformity and ability to hold size makes harvesting a mess of beets quick and easy. True to New England tradition, we steamed ours up whole, tops and bottoms. Holy Diminutive Delights! The full sweet beet flavor and fine-grained solid red interior was a revelation in taste and texture. ⑤

2105 ***A**: 1/8oz, $3.30* ***B**: 1/2oz, $5.55* ***C**: 1oz, $8.30*
***D**: 4oz, $20.50* ***E**: 1#, $65.00*

Early Wonder Tall Top (48 days) OP. The beet that can't be beat in our customers' estimation, loved by commercial growers and home gardeners alike. Selected for earliness from Crosby's Egyptian and introduced in 1911. Quick emergence in cold soil and attractive purple tops make Wonder the choice for early beet greens and bunching beets. In their 1916 catalog F.H. Woodruff & Sons of Medford, CT, claimed to be the largest beet-seed growers in the U.S. and the originators of Early Wonder.

Early Wonder Tall Top ②④

2108 ***A**: 1/8oz, $3.00* ***B**: 1/2oz, $4.25* ***C**: 1oz, $6.00*
***D**: 4oz, $9.00* ***E**: 1#, $18.50* ***K**: 5#, $80.00*

Early Wonder Tall Top - Organic ② *Note:* May present a small percentage of off-types with white beets or dark red tops.

2109 ***A**: 1/8oz, $3.50* ***B**: 1/2oz, $4.50* ***C**: 1oz, $5.75*
***D**: 4oz, $13.00* ***E**: 1#, $40.00* ***K**: 5#, $142.00*

Red Ace (50 days) F-1 hybrid. Sweet early-season beet with purple tops. Market growers appreciate its uniformity and perfect shape, very similar to Early Wonder but more refined. Nikos loves its deep color and flavor. Tolerant to CLS. Avg 1100 seeds/oz.

Red Ace ⑤

2120 ***A**: 1/8oz, $3.75* ***B**: 1/2oz, $6.50* ***C**: 1oz, $10.00*
***D**: 4oz, $22.00* ***E**: 1#, $60.00*

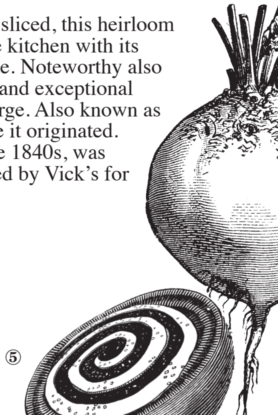
Red Ace - Organic ⑤

2121 ***A**: 1/8oz, $5.00* ***B**: 1/2oz, $10.50* ***C**: 1oz, $18.00*
***D**: 4oz, $55.00* ***E**: 1#, $200.00*

Kestrel (23-35 days baby; 55 days full size) F-1 hybrid. As an early baby and summer crop, vigorous healthy greens top elegant uniform heart-shaped roots. The tender deep red interior was mild and sweet even after a dry scorching June. Come fall, full-size rounded-heart roots develop sweet deep full flavor with zero bitter sharpness. Triple-happiness is complete when Kestrel emerges from long storage firm and yummy after other beet varieties have wrinkled or rotted! Kestrel is now perched in our beet-like hearts. Intermediate resistance to DM, PM, CLS and rhizoctonia. ⑤

2126 ***A**: 1/8oz, $3.75* ***B**: 1/2oz, $6.75* ***C**: 1oz, $11.00*
***D**: 4oz, $31.00* ***E**: 1#, $89.00*

Eagle (55 days full size) *Not available in 2024. Dropped by our supplier.*



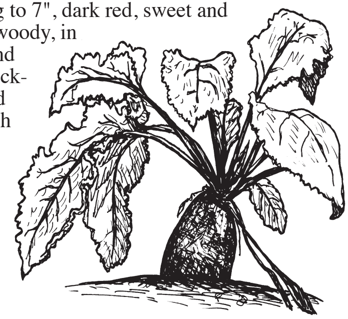
Chioggia (55 days) OP. Beautiful when sliced, this heirloom home-garden type attracts attention in the kitchen with its alternating interior rings of pink and white. Noteworthy also for its light red exterior color, green tops and exceptional sweetness. It loses quality when it gets large. Also known as Bassano, for the Venetian hill town where it originated. Has been cultivated in the States since the 1840s, was listed by Fearing Burr in 1863, and offered by Vick's for 75¢ per lb in 1877.

Chioggia ③④

2136 ***A**: 250 seeds, $3.50*
***B**: 500 seeds, $4.50*
***C**: 1,000 seeds, $7.00*
***D**: 5,000 seeds, $13.00*
***E**: 20,000 seeds, $28.00*

Chioggia Guardsmark - Organic ⑤

2137 ***A**: 250 seeds, $4.50*
***B**: 500 seeds, $7.50*
***C**: 1,000 seeds, $10.00*
***D**: 5,000 seeds, $34.00*
***E**: 20,000 seeds, $98.00*



Cylindra (56 days) OP. Also known as Forono and Formanova, a long smooth regular cylindrical beet, growing to 7", dark red, sweet and beety. Highly marketable and not at all woody, in the words of one trialer, "a fine all-around beet suitable for baking, cooking, and pickling." Roberta rates them the darkest and least fibrous of our beets. Roots will push up out of the ground and develop rough shoulders. Heirloom from the 1880s, originally from Denmark. ③④

2156 ***A**: 1/8oz, $3.00*
***B**: 1/2oz, $4.35*
***C**: 1oz, $5.15*
***D**: 4oz, $8.75*
***E**: 1#, $21.75*
***K**: 5#, $84.00*

Lutz Green Leaf - Organic (60 days) OP. For some years after Lutz became crossed up, true seed was hard to find. Insist on the real McCoy: you'll find it here. True Lutz sports glossy green tops without any purple. Though the roots will never win any beauty contests, bake the big beets for about an hour to enjoy a very special sweet treat. You'll have Lutz of luck getting them to grow lustily if you provide them with plenty of mellow compost, sow your seeds farther apart than for other beet varieties, and thin the roots to 4" apart. Heirloom variety from Europe, also known as Winter Keeper, is the best beet to grow for winter storage. ①

2170 ***A**: 1/8oz, $5.00* ***B**: 1/2oz, $8.50* ***C**: 1oz, $13.00*
***D**: 4oz, $42.00* ***E**: 1#, $150.00*

Detroit Dark Red (60 days) OP. Globular smooth uniform beets with tender oxblood-red flesh. "New varieties come and go, but the Detroit Dark Red, year after year maintains its popularity and holds its place right at the top of the list of good midseason varieties," asserted Stark Bros. catalog in 1921. Introduced 1892 and still the standard late variety for home gardeners and canners. In catalog editor Elisabeth's beet patch of four varieties, voles gobbled up all the Detroit Darks first—the ultimate taste test. Among the several strains of this century-old variety, this one had the best roots in our evaluation. ②④⑤

2182 ***A**: 1/8oz, $2.75*
***B**: 1/2oz, $3.50*
***C**: 1oz, $4.50*
***D**: 4oz, $8.00*
***E**: 1#, $20.00*
***K**: 5#, $73.00*

Bull's Blood (60 days) OP. Prized for its spectacular leaves, not its rough flattened globe-shaped roots. Runaway winner of the 26 varieties in our beet greens trial years back, sweet and nutty with never a hint of oxalic aftertaste, it again received high praise from our tasters more recently. Also a winner in appearance, with large glossy reddish-purple leaves. No bull, it holds quality all summer, with color intensifying as it grows, especially under cool conditions in fall or under winter cover. Bull's Blood is Eliot Coleman's red leaf of choice for winter harvest salad mixes. Old variety; its name hints of 19th-c. origins when beets were known as blood turnips. Selected around 1840 from the French variety Crapaudine for darkest-colored leaves.

Bull's Blood ④

2186 ***A**: 1/8oz, $3.50* ***B**: 1/2oz, $4.50*
***C**: 1oz, $7.25* ***D**: 4oz, $12.50*
***E**: 1#, $32.00*

Bull's Blood - Organic ③⑤

2187 ***A**: 1/8oz, $4.95* ***B**: 1/2oz, $7.00*
***C**: 1oz, $9.00* ***D**: 4oz, $26.00*
***E**: 1#, $89.00*

BEETS of Other Colors

3 Root Grex - Organic (54 days) OP. The genius of Alan Kapuler at work, this is an interbreeding mix of three heirlooms: Yellow Intermediate, Crosby Purple Egyptian and Lutz Saladleaf that absolutely wowed us and continues to get raves from customers. Grex, a term from orchid breeding, means that there is variation within this gene pool that continues to morph. The last few years we've revamped it for better color. There are three distinct colors in this gene pool: **a pinkish red with some orange in it, a bright gold, and a beautiful iridescent orange**. We were impressed by the unusual vigor, glowing colors and length of these gradually tapered elongated roots. The Lutz influence manifests in their size, as much as 3½" across and 7–8" long. Also produces copious greens. **Breeder Royalties.** ①

2128 ***A**: 1/8oz, $4.15* ***B**: 1/2oz, $9.00* ***C**: 1oz, $15.00*
***D**: 4oz, $43.00* ***E**: 1#, $115.00*

Golden Grex - Organic (54 days) OP. When we first trialed Alan Kapuler's 3 Root Grex in 2004, we loved its golden strain so much that we decided to select it out. It debuted in our catalog in 2009, and we quickly sold out of our five pounds of seed. What with the vagaries of biennial seed production, it was seven long years before we had it to offer again, when our appreciative customers gobbled up more than 50 lb of seed. Those who love 3 Root Grex will be utterly enchanted. Golden Grex has Lutz in its parentage, as manifested by its green tops, lush growth, somewhat elongated Lutz shape and enormous roots that remain mild and sweet even as they grow up to 6–7" long and 3½" wide. Roots are **golden orange with a blushed orange hip** on the top of the beet. Some, but not all, interiors will have beautiful alternating concentric rings of yellow and red similar to a chioggia. The stems retain some golden coloration. ①

2129 ***A**: 1/8oz, $4.35* ***B**: 1/2oz, $10.00* ***C**: 1oz, $17.00*
***D**: 4oz, $47.50* ***E**: 1#, $153.00*

Boldor (55 days) OP. Boldor's strong germination and vigor roars to life more quickly than the other yellow beets, making it easier to grow, especially under stressful conditions. Its excellent uniform round **rose-gold** roots have duped many into mistaking it for a hybrid. When cooked, Boldor's meat becomes fully light orange with no striations, a blend of carroty sweetness and mild beety depth. Touchstone's flesh color may have more pop, but many of us favored Boldor in taste tests. And it's hard to top its tops: Boldor has healthy short upright light green tops with gold stems and veins. ④

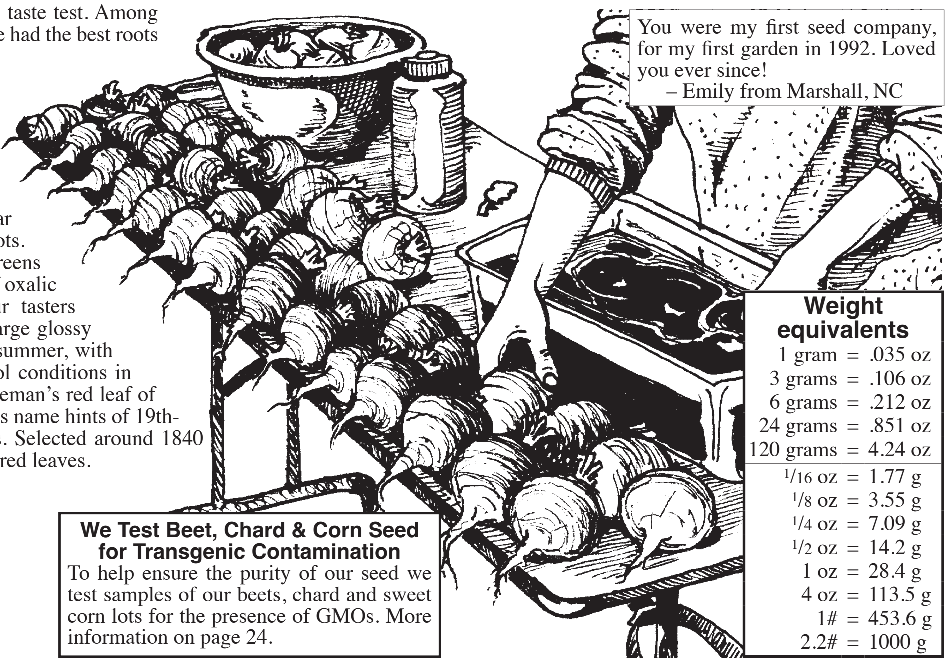
2130 ***A**: 1/8oz, $4.15* ***B**: 1/2oz, $9.50* ***C**: 1oz, $15.50*
***D**: 4oz, $48.00* ***E**: 1#, $147.00*

Golden Detroit - Organic (55 days) OP. Sweet and delicious **vibrantly golden** beets with delicious greens. Better size, vigor, taste and disease resistance than Burpee's Golden Beet. Despite its name, does not have the classic round Detroit shape. Instead, more elongated like a pyramid. No green shoulders. ②③

2144 ***A**: 1/8oz, $4.00* ***B**: 1/2oz, $11.15* ***C**: 1oz, $18.25*
***D**: 4oz, $59.00* ***E**: 1#, $200.00*

Touchstone Gold - Organic (55 days) OP. A refined and reliable **golden** beet with long attractive green tops, Touchstone takes the guesswork out of growing golden beets. Market growers love its dependable germination and uniformly round roots that resist zoning. Like other golden beets, retains its color when cooked and has the sweet flavor prized by aficionados. ⑤

2149 ***A**: 250 seeds, $5.50* ***B**: 500 seeds, $8.50*
***C**: 1,000 seeds, $14.00* ***D**: 5,000 seeds, $45.00*
***E**: 20,000 seeds, $180.00*



You were my first seed company, for my first garden in 1992. Loved you ever since!
– Emily from Marshall, NC

We Test Beet, Chard & Corn Seed for Transgenic Contamination

To help ensure the purity of our seed we test samples of our beets, chard and sweet corn lots for the presence of GMOs. More information on page 24.

Weight equivalents

1 gram =	.035 oz
3 grams =	.106 oz
6 grams =	.212 oz
24 grams =	.851 oz
120 grams =	4.24 oz
1/16 oz =	1.77 g
1/8 oz =	3.55 g
1/4 oz =	7.09 g
1/2 oz =	14.2 g
1 oz =	28.4 g
4 oz =	113.5 g
1# =	453.6 g
2.2# =	1000 g

Key to symbols (❆ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

Broccoli, Brussels Sprouts, Cabbage & Cauliflower

Brassica oleracea

Days to maturity are from seedling emergence (subtract 20 days for transplants).
Culture: Start these brassicas indoors March–May for setting out May–July, or direct-seed in May, or in June for fall crop. **Minimum germination soil temperature 40°, optimal range 55–85°.** Easier grown for fall because many varieties perform poorly in hot summers. For better stands in dry conditions, sow in trenches and keep irrigated. Wire hoops and row cover (page 142) should be used at early stages to keep out flea beetles and swede midge.

Diseases: For further information see box below.

BL	Blackleg	TB	Tipburn
BR	Black Rot	FY	Fusarium Yellows
BS	Bacterial Speck	WR	White Rust
FW	Fusarium Wilt		

Note: because of a rule issued by Oregon, we cannot ship brassica packets larger than 1/2 oz (14g) into the Willamette Valley, except those that have tested negative for Black Leg and Black Rot. Our information at press time is in the descriptions here; please check our website for updates.

The brassica seed we offer is seed grade, and it is not fit for human consumption as sprouts. It is not stored in food-safe sanitary conditions before it reaches us. For sprouting seed, please contact your natural foods supplier.

BROCCOLI

B. o. (botrytis group)

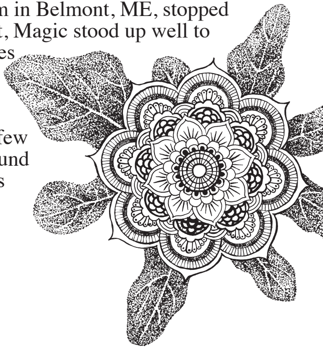
- About 100–300 seeds/g. Average varies by cultivar.
- Days to maturity are from seedling emergence (subtract 20 days for transplants)
Culture: Broccoli dislikes the extreme temperature and moisture fluctuations we have endured in recent seasons. Climate change is making it a challenge to grow even the more heat-tolerant varieties in the summer, while at the same time broadening opportunities in our longer more temperate falls.

Broccoli Blend (67-95 days from transplant) A mix of varieties in one packet for home gardeners who want broccoli to mature over a long season. Varieties in the mix change with availability, but no Romanesco or Piracicaba.

3326 ***A**: 25 seeds, $2.95* ***B**: 100 seeds, $5.85*
***C**: 250 seeds, $10.95* ***D**: 1,000 seeds, $24.00*

Eastern Magic (62 days) F-1 hybrid. According to breeder Sakata, 70% of the broccoli consumed in the U.S. comes from their breeding efforts. These pros developed Eastern Magic specifically for us here in the Northeast. After many seasons of consistent 6–8" high-domed heads with gorgeous blue-green beads, Christa of Bahner Farm in Belmont, ME, stopped growing any other broccoli. As testament, Magic stood up well to the significant pest and weather challenges of the dreadful 2022 growing season. Fedco staffer Molly had lost all hope after her spring crop was decimated by flea beetles, but—abracadabra!—after a few generous waterings her plants turned around to form huge perfect heads with delicious succulent stems and gratifying flavor. Tested negative for BR and BL. ⑤

3302 ***A**: 25 seeds, $4.25*
***B**: 100 seeds, $6.15*
***C**: 250 seeds, $9.75*
***D**: 1,000 seeds, $19.00*
***E**: 5,000 seeds, $71.00*



Pest and Disease Remedies for all Brassicas:

Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Asian Greens (p. 36-38), Kale & Collards, Kohlrabi (pp. 39-40)

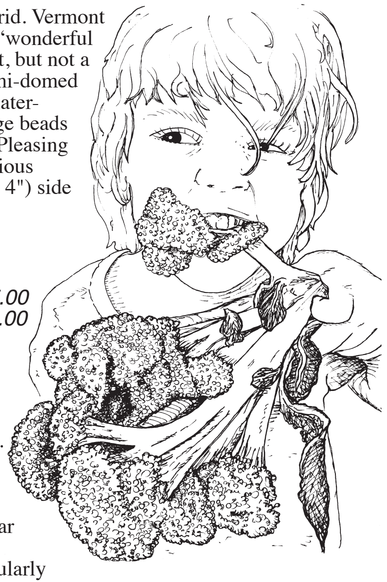
Major pests: Cabbage Looper, Diamondback Moth, Imported Cabbageworm
- Cultural controls: control cruciferous weeds near crop fields, till under crop debris of early season brassicas after harvest.
- Material controls: **8762** Spinosad, **8753-6** Bt, (both p. 147).

Pest: Flea Beetle
- Cultural controls: floating row covers (p.142), mulch with straw, time plantings for fall harvested crops only, crop rotation, perimeter trap cropping.
- Material controls: **8735** AzaMax, **8762** Spinosad, **8765-8** Pyrethrin, (all p. 147).

Pest: Cabbage Root Maggot
- Cultural controls: time planting to avoid first hatching, use row covers, control weeds.

Major diseases: Black Rot, Alternaria Leaf Spot, Blackleg, Club Root, Downy Milldew, White Mold
- Cultural controls: avoid transplanting plants with yellow leaves or v-shaped lesions, crop rotation, destroy crop debris after harvest, avoid overhead irrigation, control weeds, allow for good air movement.
- Material control: **8672** copper, (p.145).

Disease: Head Rot
- Cultural controls: use well-domed varieties, harvest heads when tight, cut stalks at an angle.
- Material control: **8672** copper (p. 145)



Tendergreen (67 days) F-1 hybrid. Vermont grower Altoon Sultan calls this a "wonderful early broccoli." Exceptionally fast, but not a stalwart in extreme heat. 6–7" semi-domed heads are lighter weight than the later-season varieties. The medium-large beads do a good job of shedding water. Pleasing blue-green color, tender and delicious flavor. Modest 2–3" (occasionally 4") side shoots follow. ③

3303 ***A**: 25 seeds, $2.95*
***B**: 100 seeds, $4.55*
***C**: 250 seeds, $9.00*
***D**: 1,000 seeds, $17.00*
***E**: 5,000 seeds, $65.00*

Solstice - Organic (71 days) *Not available in 2024, but we hope to offer this variety again someday.*

Jacaranda (72 days) F-1 hybrid. Historian and seed catalog enthusiast Jill Lepore, writing in *The New Yorker*, called our description for this variety last year "bumptious [and] baffling." But a dose of purple prose seems particularly appropriate for this broccoli-cauliflower blend that boasts large broad easy-to-harvest purple heads held high on tall bushy plants. Excellent for a fall harvest, Jacaranda can be cut as a full tight head, or left to open for floret or "stick"-style harvests. Colorful florets and sweet tender stems are superb raw or lightly steamed. We'll take bumptious and baffling over bland and boring any day, and Jacaranda is anything but the latter. ②

3300 ***A**: 25 seeds, $6.50* ***B**: 100 seeds, $14.50*
***C**: 250 seeds, $32.00* ***D**: 1,000 seeds, $84.00*
***E**: 5,000 seeds, $270.00*

Covina - Organic (75 days) F-1 hybrid. In Maine, 2018 was scorching and dry, while 2019 started cool and wet then jumped suddenly in temps and humidity. Both years were excellent tests of early-slot Covina's summer stress tolerance. The dark green 6–8" heads with medium-fine bead stayed tight and compact without the bubbly lobing that its trial cohorts exhibited in the heat. No matter the weather, the raw and cooked quality remained fully sweet and nutty. Covina does double duty for solid reliable early fall harvests. High resistance to FY. Intermediate resistance to WR. White or yellow certified-organic coating. Tested negative for BR and BL. ④

3308 ***A**: 25 seeds, $3.50* ***B**: 100 seeds, $6.95*
***C**: 250 seeds, $12.00* ***D**: 1,000 seeds, $27.00*
***E**: 5,000 seeds, $77.00*

Green King (85 days) F-1 hybrid. Exceptionally tender, King has reigned in our broccoli taste tests for more than 20 years. It also scores high for its consistent yield of high-quality blue-green domed 8" heads with rather large beads. Market growers appreciate its healthy vigorous plants and uniform ripening. Side shoots aren't plentiful but are big enough to be marketable. Tolerates some heat, although not a midsummer monarch. ③ *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

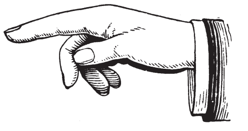
Fiesta - Organic (86 days) F-1 hybrid. Party time! Compact plants set uniform bright green tightly domed heads that stand both cold weather and heat with considerable aplomb. We were amazed by its unprecedented production of side shoots. One day in early October 2007 CR harvested ten from one healthy plant, the largest as big as a main head at 6–7", several others nearly as hefty, enough to comprise 3–4 supermarket bunches. White or yellow certified-organic coating. Tested negative for BR and BL. ④

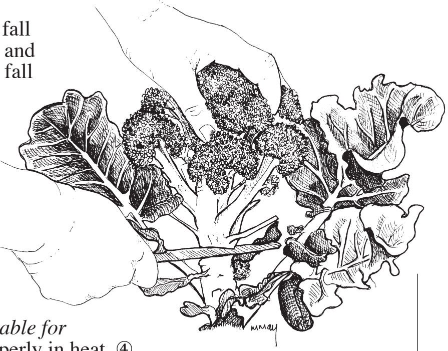
3312 ***A**: 25 seeds, $4.95* ***B**: 100 seeds, $7.75*
***C**: 250 seeds, $10.95* ***D**: 1,000 seeds, $24.00*
***E**: 5,000 seeds, $107.00*

Green Magic (90 days) F-1 hybrid. As supplier/breeder Sakata dropped 30+ year farmer-fave Arcadia, we were already eyeing their late-summer to fall Green Magic. In our 2019 September taste test, royal taster Nikos was bewitched by Green Magic's "full package": rich nutty sweet stem and floret flavor, with tender texture that's neither soft nor mealy. Compact 2' tall plant delivers a dark green semi-domed 6–8" head with medium-small tight bead. With the added magic of abundant side shoots, good heat tolerance and some resistance to downy mildew, this broccoli should keep you and your coven healthy wherever you practice the green arts. Tested negative for BR and BL. ⑤

3314 ***A**: 25 seeds, $4.50* ***B**: 100 seeds, $7.00*
***C**: 250 seeds, $14.95* ***D**: 1,000 seeds, $22.00*
***E**: 5,000 seeds, $68.00*

Gypsy (91 days) *We've dropped this out of respect for people of the Romani diaspora. The name is a racial pejorative used against an ethnic group that has faced persecution, enslavement and genocide across Europe for many centuries.*





Waltham 29 (92 days) OP. For fall harvest only. Developed in 1951 and long considered the standard OP fall broccoli. We've found a reliable strain that consistently produces 6" loose heads with medium beads on attractive stocky 20" plants. Waltham delivers good-sized central heads, but no side shoots. Flavor consistently gets high marks in our taste tests that include the newer hybrids. *Caution: not suitable for summer crops*; will not head properly in heat. ④

3320 ***A**: 25 seeds, $2.25* ***B**: 100 seeds, $3.00*
***C**: 500 seeds, $4.50* ***D**: 2,500 seeds, $6.00*
***E**: 10,000 seeds, $9.00* ***K**: 25,000 seeds, $17.00*
***L**: 100,000 seeds, $28.00*

Millennium (94 days) F-1 hybrid. Like the Millennial generation, this broccoli might be a little slow to mature but it shows amazing resilience and staying power under stress. Hot, cold, wet, dry, summer or fall, Millennium rebounds quickly and continues its steady journey to green-headed excellence. We've found this broc's crazy-weather tolerance equal to or better than Bay Meadows. This means less helicopter gardening and less worry about dreaded button-heading and bolting. Millennium's large 7" wide deep green heads are very finely beaded, high domed with no lobing. Retains its deep green color post-harvest. Raw or steamed, we find its flavor sweet, nutty and mild. Fall harvest matures five days later. Tested negative for BR and BL. ⑤

3307 ***A**: 25 seeds, $3.85* ***B**: 100 seeds, $6.75*
***C**: 250 seeds, $11.00* ***D**: 1,000 seeds, $20.00*
***E**: 5,000 seeds, $78.00*

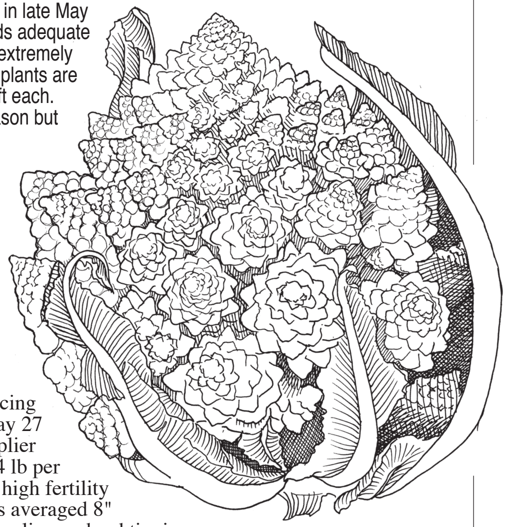
Umpqua - Organic (95 days) OP. For fall harvest only. Handsome uniform dark-green 5–8" heads with large beads size up quickly. A great producer of abundant side shoots will provide a long harvest window. Excellent taste along with stress-tolerance make Umpqua an ideal home-garden variety for the fall. Developed in 1990 by Tim Peters, gets its name from the Umpqua River in Oregon. Tested negative for BL. **Breeder Royalties.** ①

3325 ***A**: 25 seeds, $2.95* ***B**: 100 seeds, $5.80*
***C**: 500 seeds, $9.95* ***D**: 2,500 seeds, $19.65*
***E**: 10,000 seeds, $44.00*

ROMANESCO BROCCOLI

One of the most beautiful of plants when grown well. Chef Odessa Piper called the cone-shaped somewhat irregular whorl of chartreuse florets "broccoli on acid."

Culture: Should be started indoors in March or April and transplanted out in late May or June for fall harvest. Needs adequate spacing, a long season and extremely high soil fertility. Well-grown plants are huge and need about 10 sq ft each. Be patient; needs a long season but doesn't mind cool weather.



Veronica (98 days) F-1 hybrid. A reliable and refined version of Romanesco broccoli. Combining sweetness with a fine brassica zing, Veronica is tender and delicate as a crudité and quite flavorful cooked. First ripened Sept. 16-19, 2013, for trialer Donna Dyrek and was still producing in mid-October from a May 27 greenhouse start. The supplier claims average weight is 4 lb per head, but in conditions of high fertility and wide spacing, Dyrek's averaged 8" across and 5 lb. Resists purpling and red tipping during heat. Tested negative for BR and BL.

Veronica ④

3329 ***A**: 0.1g, $4.50* ***B**: 0.3g, $9.95* ***C**: 1.2g, $26.00*

Veronica - Organic ④

3330 ***A**: 0.1g, $5.15* ***B**: 0.3g, $12.50*
***C**: 1.2g, $32.00* ***D**: 6g, $99.00*

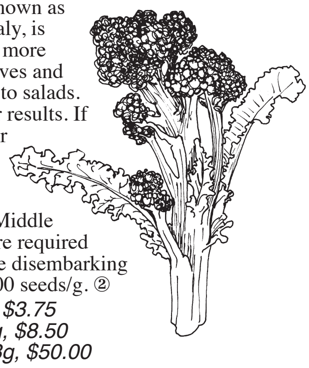
NON-HEADING BROCCOLI

Piracicaba (56 days) *Not available in 2024, but we hope to offer this variety again someday.*

Purple Peacock Gene Pool (92 days) *We need a grower!*

Chinese Broccoli, **3204** Kailaan: see Asian Greens on p. 36.

BROCCOLI RAAB *B. rapa* (ruvo group)



Quarantina (40 days) OP. Raab, also known as Rapini here and Broccolo Asparago in Italy, is a non-heading version of broccoli with a more pungent flavor. Harvest young stems, leaves and small flower buds. Steam, stir-fry or add to salads. People try this as a spring crop with poor results. If the flea beetles don't get you, the summer heat will. Raab is much better as a fall crop. It will hold a lot longer and cool nights improve the flavor. *Quarantina* means '40 days'—this goes back to the Middle Ages when sailors arriving in Venice were required to anchor in the harbor for 40 days before disembarking to prevent the spread of plague. About 600 seeds/g. ②

3485 ***A**: 2g, $2.95* ***B**: 4g, $3.75*
***C**: 14g, $5.50* ***D**: 28g, $8.50*
***E**: 112g, $17.00* ***K**: 448g, $50.00*

BRUSSELS SPROUTS

B. o. (gemmifera group)

- About 100-200 seeds/g.
- Days to maturity are from seedling emergence (subtract 20 days for transplants).

Culture: Start indoors in early spring and transplant into very fertile soil. Give each plant about 9 sq ft. Wire hoops and row cover (page 142) should be used at early stages to keep out flea beetles and swede midge. (See page 16 for more growing info.) Very cold hardy; flavor is improved by frost and sprouts can be harvested past the first snowfall. Lop tops off plants in early September to encourage sprout development.

Speedia (98 days) F-1 hybrid. In our brussels trials, Speedia's vigorous and extra sturdy 30–36" stalks never tilted, its large to very large sprouts were bountiful and tasty, and its more open foliage resulted in much less gross aphid rampage. We've trialed it every season since and are convinced it's a superior variety for easy and bold-sized sprouts, unseating Hestia in the early "half tall" brussels niche. And as the fall aphid problem in brassicas has worsened for many of us, compact Speedia has continued to be a very low-presence variety. High resistance to FY. Tested negative for BR and BL. ④

3335 ***A**: 25 seeds, $5.25* ***B**: 100 seeds, $8.50*
***C**: 250 seeds, $15.50* ***D**: 1,000 seeds, $43.00*
***E**: 5,000 seeds, $178.00*

Divino (105 days) F-1 hybrid. Brussels sprouts are Fedco's former trials coordinator Heron's favorite veggie, which may explain the inordinate trial budget that has gone into sprouts research. His dedication doubled down on a serious challenge: finding brussels with less aphid presence, a scourge in some Northeast growing seasons. We've discovered that plant architecture really matters: well-spaced branches and sprouts allow airflow, which helps keep aphids to a minimum. Divino seems blessed from above in our trials, with only a scattering of aphids or none at all. Tall-stalked Divino's plentiful very tight half dollar–sized sprouts are dark green and delish, making us count our brussels blessings that breeder Bejo keeps the faith. Tested negative for BR and BL. ④

3343 ***A**: 25 seeds, $5.00*
***B**: 100 seeds, $9.95*
***C**: 250 seeds, $16.75*
***D**: 1,000 seeds, $44.00*
***E**: 5,000 seeds, $178.00*

Nautic - Organic (120 days) F-1 hybrid. A new maritime favorite sailing into fall with bright fresh flavors. Like Divino, Nautic's sprouts are spaced farther apart, allowing plants to dry out quickly to avoid any spread of disease and making it easier to harvest individual sprouts. They also showed the least amount of aphid damage in last season's trial. Vigorous and sturdy plants with 1" tightly wrapped sprouts. Tested negative for BR and BL. ④ **NEW!**

3346 ***A**: 25 seeds, $5.50*
***B**: 100 seeds, $11.45*
***C**: 250 seeds, $21.00*
***D**: 1,000 seeds, $68.00*
***E**: 5,000 seeds, $284.00*

> Thanks for doing all you do to keep seeds in the hands of regular folks!
> – Steven from
> Concord, NH

CABBAGE

B. o. (capitata group) **About 150–350 seeds/g.**

- Days to maturity are from seedling emergence (subtract 20 days for transplants).

Culture: Exposure to hoarfrost is good for cabbages. They double their sugar content after one month of cold. Wire hoops and row cover (page 142) should be used at early stages to keep out flea beetles and swede midge. (See page 16 for full growing info.)

GREEN CABBAGE

Golden Acre (62 days) OP. The best choice for an early OP cabbage that's not a pointy-headed intellectual from Jersey. A selection of the Copenhagen Market type billed as "new…the earliest of the round-headed cabbages" in the 1928 Jerome B. Rice catalog. Grey-green heads, some with a faint reddish tint in the outer leaves, average 3–5 lb. Our trialers once again found them big, round and solid with white interiors. 75% were marketable. In taste tests, our staff continues to give them high marks as sweet and tender with spicy flavor that developed buttery undertones after cooking. Notes included several "yums" and one "great!" Short stems with sparse wrapper leaves and medium-sized core keep plants compact. Not long standing. ②

3352 A: 2g, $2.65 B: 4g, $3.85 C: 14g, $4.95
D: 28g, $6.50 E: 112g, $12.50 K: 448g, $24.00

Early Jersey Wakefield (63 days) OP. This classic early cabbage flaunts distinctively pointy compact medium 2–3 lb heads. The pyramidal shape with sparse outside foliage permits close spacing. Tender flavorful waxy-looking Wakefield is still prized by home and market gardeners. Originated in England in the early 1800s, first grown in America in 1840, perfected by a German truck gardener in northern New Jersey and released by Peter Henderson in 1868. Henderson in 1902 asserted that "it was more largely grown than all other first early cabbages combined" and called it an "old reliable always to be depended upon for its uniformity in earliness and crop." Customer Anne Elder considers it a great fall cabbage as well. Shows some variation in our lot grow-outs. Not for storage. ④

3355 A: 2g, $2.65 B: 4g, $3.55 C: 14g, $5.15
D: 28g, $7.95 E: 112g, $12.50 K: 448g, $24.00

Stonehead (68 days) F-1 hybrid. This 1969 AAS winner remains a champion in the home garden. Like the Toronto Maple Leafs who haven't lifted the Stanley Cup since 1967, Stonehead still has throngs of devoted fans throughout the northlands, and it won our cooked texture and taste tests again in 2021. Early 4–6 lb round dense hard heads resist splitting—no need to rush out to harvest. That plus compact and healthy plant habit make it easy to grow. Not considered a storage variety, but keeps fine in the cooler. Tested negative for BR and BL. ⑤

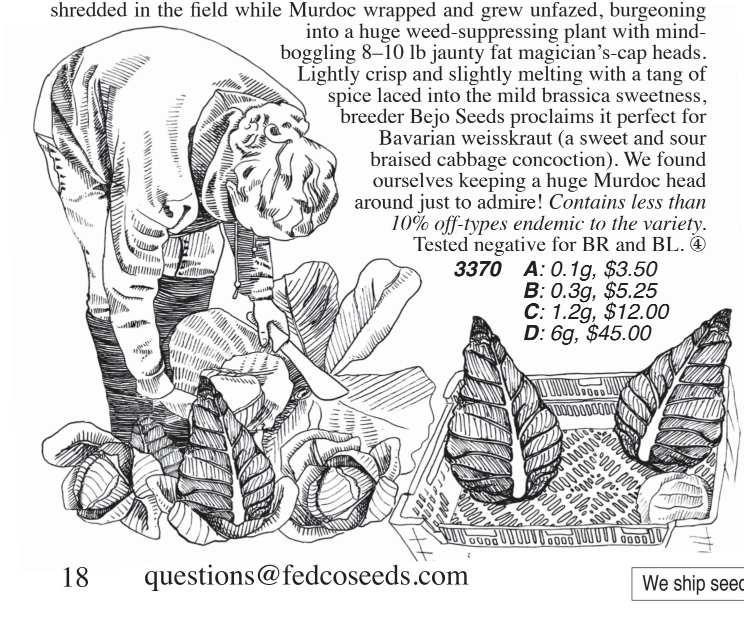
3363 A: 0.5g, $3.75 B: 1g, $5.75 C: 4g, $14.50
D: 14g, $32.00 E: 28g, $52.00

Storage #4 (80 days) F-1 hybrid. Our first trials of this dark green 4–8 lb cabbage were more than two decades ago, but #4 has stored well in our memories ever since, and not on account of its catchy name! Typically will store at least until spring, but Robert Baskett of Brunswick, ME, ate his last two on Christmas Eve 2020 after storing them for 14 months! He stripped off outer leathery leaves and used one cabbage for steamed dumplings and the other for a stir-fry. Delicious solid head holds well during the weather stresses of fall harvest. Widely adapted but because of its earliness relative to other storage cabbages, we recommend planting a bit later if storage is your intent. Resists FY. Tested negative for BR and BL. ⑤

3365 A: 0.5g, $4.95 B: 1g, $7.00 C: 4g, $16.75
D: 14g, $47.00 E: 28g, $81.00

Murdoc (80 days) F-1 hybrid. In our 2018 summer trials of pointy-headed green cabbage, patient and persevering Murdoc transcended the conical competition. Frazzled by a humid scorching mid-July, the contenders shredded in the field while Murdoc wrapped and grew unfazed, burgeoning into a huge weed-suppressing plant with mind-boggling 8–10 lb jaunty fat magician's-cap heads. Lightly crisp and slightly melting with a tang of spice laced into the mild brassica sweetness, breeder Bejo Seeds proclaims it perfect for Bavarian weisskraut (a sweet and sour braised cabbage concoction). We found ourselves keeping a huge Murdoc head around just to admire! *Contains less than 10% off-types endemic to the variety.* Tested negative for BR and BL. ④

3370 A: 0.1g, $3.50
B: 0.3g, $5.25
C: 1.2g, $12.00
D: 6g, $45.00



Tribute (103 days) F-1 hybrid. Gigundo solid round 10–12 lb blue-green heads reaching 10" across will figuratively jump out at you. Huge wrapper leaves stifle weeds. Not a great keeper, softening and splitting by December, so enjoy in fall when it's sweet and crunchy raw with a mild tang and cabbagey taste in its ribs. Good flavor for such a biggie; makes great sauerkraut. Remained sweet when cooked, a close second to **3352** Golden Acre in our tasting. Fully ripe around Oct. 1 from a July 10 transplanting. Give this champ plenty of space to strut its stuff. ③

3390 A: 0.5g, $3.75 B: 1g, $5.00
C: 4g, $9.00 D: 14g, $17.00

Gunma (110 days) F-1 hybrid. Named for a prefecture on Japan's Honshu Island known for cabbage production. Our choice for a superior flat-topped green cabbage ideal for cooks and gourmets, great for kraut and kimchi. Good moisture content makes sufficient brine so you don't need to add more to the kraut. Sweet tender wrapper leaves suitable for using raw for cabbage wraps and rolls. Wide large heads (avg 5–7 lb but can get up to 11–13 lb) remain almost coreless. Although ready on Aug. 2 from a May 21 transplanting, they sat in the field for two months without splitting. Outer leaves can't hold up once temperatures plummet to the 20s—not for storage. Resists FY, TB. Tested negative for BR and BL. ④

3392 A: 0.2g, $4.75 B: 0.4g, $6.80
C: 1g, $10.50 D: 4g, $31.00

January King (180 days) *Not available in 2024. We hope to have it back next year.*

RED CABBAGE

Red Acre (75 days) OP. An old head in the seed world, this small to medium 3–5 lb red cabbage with excellent flavor and texture was a surprise winner in our trials. Its distinctive violet-rose complexion pops out among the other "reds" in the garden. Round heads can be up to 7" across on a compact plant—you might get away with cramming in a few extra into your cabbage patch. Long storage potential for an early cabbage. ②④

3359 A: 2g, $2.50 B: 4g, $3.50
C: 14g, $4.50 D: 28g, $5.50
E: 112g, $11.00 K: 448g, $22.00

Ruby Perfection (85 days) F-1 hybrid. This fancy midseason type has produced some of the loveliest cabbage we've ever seen: solid deep purple-red spherical heads averaging 4–6 lb, occasionally reaching 8 lb. "Hard as a rock," observed Jason Kafka. A great storage cabbage; will keep till May in the root cellar. Survived outdoor temperatures of 18° under a double layer of row cover. Low tolerance to BR, but tested negative for BR and BL. ⑤

3375 A: 0.5g, $5.15 B: 1g, $7.45 C: 4g, $20.50
D: 14g, $64.00 E: 28g, $113.00

Mammoth Red Rock (100 days) *Dropped. Try **3391** Klimaro!*

Klimaro - Organic (105 days) F-1 hybrid. Reminiscent of a rhodolite garnet, dark reddish-purple and solid as a polished gemstone. With a small core and dense head, Klimaro stores very well and has excellent cold tolerance, withstanding temps in the low 20s. The 5–8 lb round heads grow high on tall plants, making them easy to harvest. In taste trials we found Klimaro to have a good flavor and a high crunch factor. Tested negative for BR and BL. ④ **NEW!**

3391 A: 25 seeds, $4.65 B: 100 seeds, $10.95
C: 300 seeds, $21.00 D: 1500 seeds, $65.00

SAVOY CABBAGE

Melissa (85 days) F-1 hybrid. A gorgeous savoy, 2–4 lb solid slightly flattened light green heads surrounded by attractive dark blue-green waxy wrapper leaves. Can grow twice that size with high fertility and wide spacing. Vigorous even in cold wet conditions; ripens around Sept. 1 from early June transplanting. Flavor improves with cold weather. Adapted for close spacing. For dependability, uniformity, attractiveness and taste, Melissa can't be topped. FY, TB tolerant. Tested negative for BR and BL. ④

3378 A: 0.5g, $6.65 B: 1g, $9.95 C: 4g, $32.00
D: 14g, $99.00 E: 28g, $189.00

Des Vertus (95 days) OP. From the 1800s, also known as Large Drumhead Savoy. French heirloom features medium-green large heads averaging 4–6 lb. Mild, juicy and semi-sweet. Moderate storage. Cold-tolerant into fall; may overwinter in warmer climes. ③

3384 A: 2g, $3.50 B: 4g, $6.00 C: 14g, $10.50
D: 28g, $18.00 E: 112g, $50.00

Deadon - Organic (105 days) F-1 hybrid. Lovely savoyed pinkish-purple outer leaves dusted with grey are nice as garnish, and light green interior is great for salads and slaw. Solid medium-large 3–6 lb heads of 6–10" diameter with densely packed innermost leaves are very sweet with a spicy nip. Color intensifies and flavor sweetens in fall. Overwintered for Donna Dyrek in central Maine. Long storage in the cellar. White or yellow certified-organic coating. Resists FW, FY. Tested negative for BR and BL. ❆ ④

3393 A: 25 seeds, $4.50 B: 100 seeds, $11.00
C: 300 seeds, $20.00 D: 1500 seeds, $65.00

Chinese Cabbage: see Asian Greens, p. 37.

We ship seeds to Canada!

CAULIFLOWER

B. o. (botrytis group) **About 100–300 seeds/g.**

- Days to maturity are from seedling emergence (subtract 20 days for transplants).

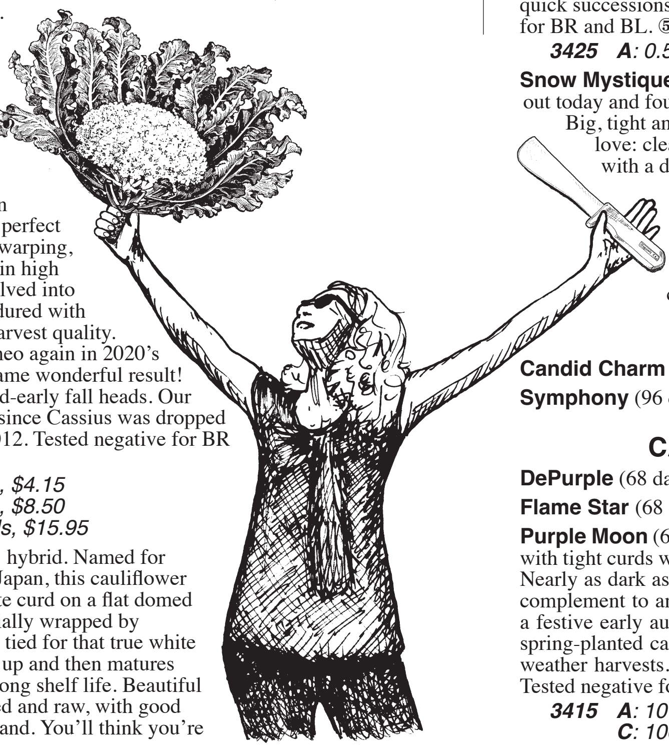
Culture: Cauliflower heads will "button" under stress. Do not allow seedlings to get pot-bound; avoid interruptions in growth. Most varieties can't stand the heat and are not suitable for summer production. When heads first appear, bend leaves over curd to prevent discoloring. Wire hoops and row cover (page 142) should be used at early stages to keep out flea beetles and swede midge. (See page 16 for growing info.)

Fioretto 60, flowering stick type (60 days) F-1 hybrid. A luxury of fine-textured curd and tender nutty stems. Developed from lesser-known tropical and Italian lines of annual summer cauliflower, Fioretto's breathtaking coral-like beauty and unusual stick-type form was an unexpected surprise in our trials. Produces a large slightly flattened 8–14" head with creamy curds atop a somewhat loose bouquet of longer stems. As the head expands into slightly spaced irregularity, each floret gently extends into a single-serve branch that should be harvested individually. In Japan, where this variety originated, it's enjoyed pickled. When cooked, the tasty stems brighten to lime green and complement the sweet button-like florets of curds. Plant when temps have warmed so plants don't head too early. ⑤

3402 ***A**: 0.1g, $4.50* ***B**: 0.2g, $7.00* ***C**: 1g, $23.00*
***D**: 2g, $36.00* ***E**: 4g, $65.00*

Charming Snow (60 days) (60 days) F-1 hybrid. Short white stems bear early compact 1–2 lb uniform round firm white tight heads with fine beads. Though seeded as late as July 8, these were already heading for Donna Dyrek by the first of September. *Note: Heads not as dense or substantial as the maincrop varieties.* ③

3404 ***A**: 0.1g, $3.35* ***B**: 0.3g, $4.00* ***C**: 1.2g, $8.00*
***D**: 6g, $15.00* ***E**: 18g, $34.00*



Bermeo - Organic (65 days) F-1 hybrid. The seaport town of Bermeo in the Basque region of Spain sees intolerable summer heat, weather that is kryptonite to cauliflower. Even in Maine, the idea of cauliflower in hot humid July is laughable. For kicks, we did a summer trial of the supposed heat-tolerant kinds. Our curd-loving but doubtful chuckles were silenced in adoration of Bermeo—a perfect unmarred head, without warping, melting or discoloration in high summer. All others dissolved into chaos, while Bermeo endured with tasty firm curds of fall-harvest quality. Still wary, we tried Bermeo again in 2020's epic dry hot summer—same wonderful result! Also makes excellent mid-early fall heads. Our first organic cauliflower since Cassius was dropped from the seed trade in 2012. Tested negative for BR and BL. ④ **BACK!**

3406 ***A**: 10 seeds, $4.15*
***B**: 40 seeds, $8.50*
***C**: 100 seeds, $15.95*

Fujiyama (65 days) F-1 hybrid. Named for the highest mountain in Japan, this cauliflower shines with a strong white curd on a flat domed 6–8" head, which is partially wrapped by leaves but should still be tied for that true white color. Needs heat to size up and then matures uniformly, with a fairly long shelf life. Beautiful and delicious both cooked and raw, with good flavor and texture, not bland. You'll think you're on top of the world. ⑤

3408 ***A**: 0.5g, $4.75* ***B**: 1g, $7.00* ***C**: 4g, $19.00*
***D**: 14g, $46.00* ***E**: 28g, $80.00*

Snow Crown (70 days) F-1 hybrid. Makes cauliflower a cinch to grow. Dependable early producer of uniform 6–7" heads early summer through October. Drought resistant. Sometimes develops pink heads in adverse conditions. 1975 AAS from Takii. Tested negative for BR and BL. ⑤

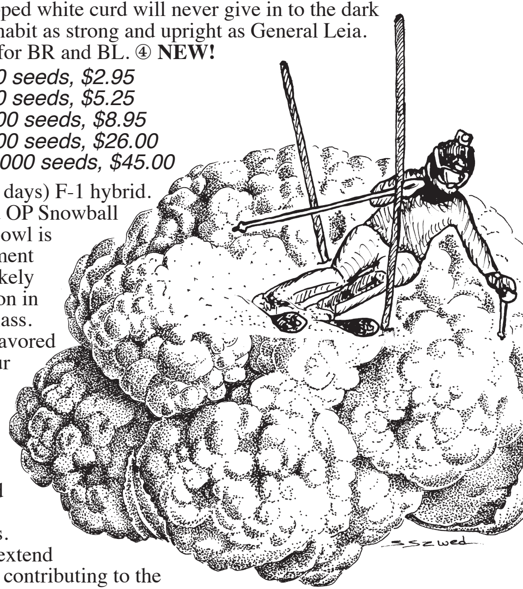
3410 ***A**: 0.5g, $5.25* ***B**: 1g, $8.25*
***C**: 4g, $26.00* ***D**: 14g, $70.00*

Swede Midge—not as cute as it sounds!

Alert! Heading brassicas in the Northeast are seeing consistent damage from swede midge, a tiny gall midge. Its effects result in a non-heading plant. **Wire hoops and row cover at early stages of heading brassica crops are becoming crucial for success.** (See page 142 for hoops and row cover.) Some research also suggests garlic sprays as a possible organic repellent. Consult your Cooperative Extension resources for more information.

Skywalker (80 days) F-1 hybrid. You won't need to use the force to attain revolutionary fall harvests of dependable cold-tolerant medium-large heads. The tightly wrapped white curd will never give in to the dark side, with plant habit as strong and upright as General Leia. Tested negative for BR and BL. ④ **NEW!**

3418 ***A**: 10 seeds, $2.95*
***B**: 40 seeds, $5.25*
***C**: 100 seeds, $8.95*
***D**: 500 seeds, $26.00*
***E**: 1,000 seeds, $45.00*



Snowbowl (83 days) F-1 hybrid. A pun on the old OP Snowball varieties, Snowbowl is a huge improvement over them and likely national champion in the midseason class. Rated the best-flavored cauliflower in our trials, "a real wowser" says Nikos. Delicate, chewable, tender, buttery, fine-textured and creamy cooked, report our tasters. Wrapper leaves extend upward, not out, contributing to the extra white color of these well-protected curds. Maturity is very uniform, all within one week. For best quality, inspect your patch frequently and be prepared to harvest at 5–6" when these dense domed $1^1/_2$ lb heads are very tight. Compact plant habit permits close 20–24" spacing for high yields and quick successions, a big plus for market growers. 22" tall. Tested negative for BR and BL. ⑤

3425 ***A**: 0.5g, $4.60*

Snow Mystique (93 days) F-1 hybrid. On Oct. 11 our trialer noted, "I went out today and found two absolutely beautiful large heads of Snow Mystique. Big, tight and gorgeous!" Mystique has all the cauliflower attributes we love: clean white dense well-proportioned heads, good upright habit with a dome shape to ward off excess moisture, plus a tender flavor not expected from such a massive plant. Massive it was, heads rated at 1.8 lb average by our supplier, but double that weight in our trial. Perfect for end of September and early October when cauliflower is at its best in our climate. Can be slow-growing in higher elevations and cold spots. Tested negative for BR and BL. ⑤

3428 ***A**: 0.5g, $5.50* ***B**: 1g, $8.00*
***C**: 4g, $22.00* ***D**: 14g, $62.00*

Candid Charm (95 days) *Not available in 2024. Dropped by our supplier.*

Symphony (96 days) *Dropping all ⑥ suppliers. Try **3418** Skywalker!*

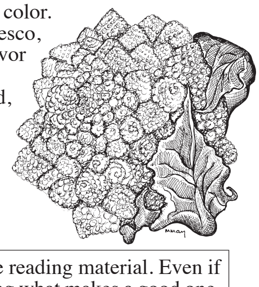
CAULIFLOWER of Other Colors

DePurple (68 days) *Dropping all ⑥ suppliers. Try **3415** Purple Moon!*

Flame Star (68 days) *Dropping all ⑥ suppliers. See page 5.*

Purple Moon (62 days) F-1 hybrid. This super early deep purple cauliflower with tight curds will start forming heads before than any other purple around. Nearly as dark as Grimace and more purply than the People Eater. A perfect complement to an early white like Charming Snow; roast them together for a festive early autumn side dish (or main dish!) If you've had success with spring-planted cauliflower, Purple Moon might perform for you in warmer-weather harvests. But like other cauliflowers, it does best for a fall harvest. Tested negative for BR and BL. ③ **NEW!**

3415 ***A**: 10 seeds, $4.95* ***B**: 40 seeds, $10.95*
***C**: 100 seeds, $19.95* ***D**: 500 seeds, $64.00*
***E**: 1,000 seeds, $115.00*



Vitaverde (76 days) F-1 hybrid. With compact, somewhat raised and clustered, bold **bright green curd**, Vitaverde cauliflower looks almost ready to boil over into romanesco form. The 1.8 lb heads measure 6" wide by $4^1/_4$" deep, adding heft to eye-catching color. Raw, Vitaverde is crunchy and dense like a romanesco, not grainy or ricey. The sweet mild cauliflower flavor has only a hint of sharpness. Steamed, the texture becomes smooth and a bit firm, and the flavor mild, savory and satisfying. Its lively green is slightly diminished to a warm rich shade, keeping accent and excitement on the plate and the palate. Tiny seeds, nearly 40 per packet. ②

3413 ***A**: 0.1g, $5.15* ***B**: 0.2g, $6.95*
***C**: 1g, $23.00* ***D**: 4g, $72.00*

I keep your catalog around as good lunchtime reading material. Even if I never plan to grow cauliflower, I like learning what makes a good one.
– Robin from Cleveland Heights, OH

CARROTS

Daucus carota

- 1/8 oz packet sows 35 ft; 1 oz, 280 ft. 1 g packet has more than 400 seeds and sows about 10 ft. Avg 18,000 seeds/oz with significant variations among varieties.
- Days to maturity are from seedling emergence after direct sowing.

Culture: Very hardy. Early carrots can be sown mid-spring. For fall crop or winter storage, seed in early summer. **Minimal germination temperature 40°, optimal range 75–85°.** Can take up to 3 weeks to germinate; keep rows from drying out for faster emergence. Spacing is critical: At 3" tall, thin to 1/2" apart; at 6" thin again to 1–2" apart.

Pelleted carrot seed: Our carrot pellets are size 11.5. Pelleting has one major drawback: it shortens viable life of the seed, so buy only as much pelleted seed as you need for this season and keep pellets cool and dry prior to planting. Our pellets use an inert clay coating that is in compliance with NOP standards.

Diseases:

ALTS	Alternaria Leaf Spot	PM	Powdery Mildew
BR	Black Rot	TLS	Target Leaf Spot
LR	Licorice Rot	P	Pythium

ALTS shows up first on the oldest foliage as brown-black spots edged with yellow. Foliage blackens and shrivels as it develops and spreads. Maintaining a good crop rotation is the best preventive.

EARLY CARROTS

Mokum (48 days) F-1 hybrid. Arguably the tastiest carrot for fresh eating in late spring and summer. Repeat winner of our summer taste tests. Mokum's earliness, slenderness and sweetness transcend its flaws. Blunt Amsterdam type that sizes extremely quickly with short weak tops, brittle and not machinable. Should be harvested at 5–6" before the roots push out of the ground and develop green shoulders. Although not a versatile full-season carrot, Mokum merits succession planting so you can enjoy it young throughout the summer. Always the first to disappear from our spring patch. Not for storage.

Mokum - Unpelleted ④

2086 ***A***: *1g, $4.25* ***B***: *3g, $8.50* ***C***: *6g, $13.50*
D: *24g, $39.00* ***E***: *120g, $140.00*

Mokum - Pelleted ④

2087 ***A***: *100 pellets, $4.25* ***B***: *250 pellets, $6.00*
C: *1,000 pellets, $9.00* ***D***: *5,000 pellets, $20.00*
E: *10,000 pellets, $35.00* ***K***: *25,000 pellets, $82.00*

Tonda di Parigi (55 days) OP. Round Parisian-type carrot. At 1 1/2" Tonda is small with deep orange color and good taste. Best harvested when they are young and tender and very sweet. Enjoy them cooked to maximize their sweetness and to elicit their superb creamy texture. The easiest carrot to grow if you have heavy clay soil. 19th-c. heirloom from Paris. Not for storage. ②

2018 ***A***: *1/8oz, $3.50* ***B***: *1/4oz, $5.75* ***C***: *1/2oz, $9.60*
D: *1oz, $17.25* ***E***: *4oz, $29.50*

Coral - Organic (55 days) OP. We happened upon this hard-to-find Euro specialty carrot in a Spanish seed catalog, where it was mysteriously the only carrot variety offered. We found out why when we sent some trials in 2014 to Detroit's Lafayette Greens where it swept the hybrid and OP competition. Entirely coreless, of distinctive translucent pinkish-orange, Coral won again in our 2016 trial of potential Nelson replacements. Best picked promptly for tender finger-sized Early Nantes–type roots that taper to a semi-blunt tip. The mild sweetness is boosted by a notable aroma, described as "carrot perfume" by staff tasters. With the most upright tall tops of our summer carrot trial, Coral delivers a continental flair not unnoticed by our customers. ① *Check our website for conventional Coral seed.*

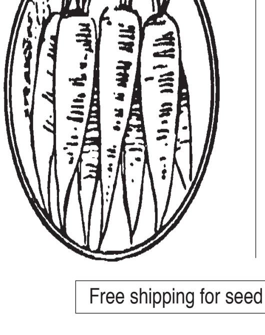
2030 ***A***: *1g, $4.15*

Aranka (56 days) F-1 hybrid. The discontinuation of Nelson carrot was a loss felt by the early summer snacking and bunching crowd. But our Fedco motto for trialing is "Less mourning, more munching!" We grew and ate a lot of early Nantes/Nelson–class carrots until we found Aranka. Bejo Seeds, who bred Nelson, packed many of the same excellent traits into Aranka: early orange crunchy sweet eating at 3–5" long. But Aranka's similar short top is stronger and healthier, making harvest and bunching easier. ④

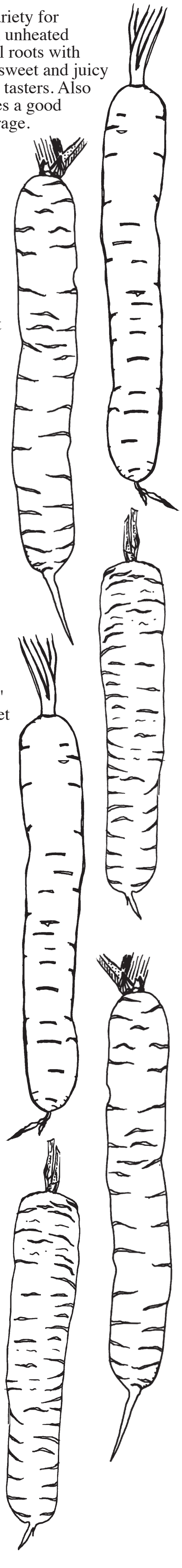
2094 ***A***: *1g, $4.50* ***B***: *3g, $10.15* ***C***: *6g, $16.25*
D: *24g, $47.00* ***E***: *120g, $200.00*

Istanbul (65 days) F-1 hybrid. We sank our teeth into many a bland orange chunk chasing down a tasty summer Imperator type until we found a real winner in sleek Istanbul: 1" at its widest, the 7–9" slender root tapers to a stylish point. In fact the tip is the only "sharpness" this carrot has to offer; uniform, deep orange inside and out, juicy, crisp, sweet, with no bitter tones even in stressful conditions. Strong tall healthy tops round out the "bunch" of reasons that this carrot is a strong contender in the Imperator market. ④

2035 ***A***: *1g, $4.00* ***B***: *3g, $9.00*
C: *6g, $13.00* ***D***: *24g, $38.00*
E: *120g, $134.00*



MAIN SEASON CARROTS



Napoli - Organic (55 days) F-1 hybrid. A favored variety for Eliot Coleman's famous candy carrots overwintered in unheated greenhouses. Blunt Nantes type grows 7–8" cylindrical roots with strong medium-sized dark green tops. Crispy, snappy, sweet and juicy with a medium core. "Extra crunchy," rated one of our tasters. Also grows rapidly when sown outdoors in spring and makes a good early bunching carrot. Suitable for fresh market or storage. Good performer in high tunnels. White or yellow certified-organic coating. ④ *We're not sure when this seed crop will arrive. Check website for availability.*

Yaya - Organic (58 days) F-1 hybrid. Nantes type. Tom Vigue says "unbeatable as a summer carrot." Not yet a grandmother in the carrot world, relatively new Yaya is in the same quality class with Mokum and a standout three straight years in our trials. In his stale-bed method carrot intensification project in Monroe, ME, grower Mark Fulford achieved a yield of 254 lb, with more than 80% #1s, from a 150 sq ft 4-row carrot bed using Yaya. That averages out to 73,000 lb/acre, more than double the average carrot yield according to the USDA. Averaging 6", Yaya is slightly shorter-rooted than Nantes Fancy but more flavorful. Strong tops, good for bunching. Crisp clean sweet carrot flavor. Can be used for baby or full-sized carrots. White or yellow certified-organic coating.

Yaya - Organic Unpelleted ④

2092 ***A***: *1g, $4.50* ***B***: *3g, $9.95*
C: *6g, $15.75* ***D***: *24g, $41.00*
E: *120g, $130.00*

Yaya - Organic Pelleted ④ **BACK!**

2093 ***A***: *100 pellets, $3.75*
B: *250 pellets, $5.75*
C: *1,000 pellets, $9.75*
D: *5,000 pellets, $22.00*
E: *10,000 pellets, $36.00*
K: *25,000 pellets, $74.00*

Scarlet Nantes (68 days) OP. This old-time favorite Nantes variety with bright orange roots averaging 6–7" proves that good quality is not always expensive. Sweet with a small dark core. Very good for storage, too. Far and away our best-selling carrot with over 100 lb sold last year. ②⑤

2042 ***A***: *1/16oz, $2.50* ***B***: *1/2oz, $5.25*
C: *1oz, $7.95* ***D***: *4oz, $14.75*
E: *1#, $34.00*

Nantes Fancy - Organic (68 days) OP. Although other strains claim the name, they fall short, not deserving the fame of this classy Nantes type that we've kept going since Daehnfeldt got gobbled up by Syngenta. Fancy grows uniform cylindrical 7" roots with unusually good interior color, crisp texture and fine flavor. Holds well and is an excellent keeper, too. Outstanding quality for an OP carrot. A 50-lb bag of seed, assuming an average germination of 80%, has the potential to produce more than eleven million carrots! ①

2051 ***A***: *1g, $3.50* ***B***: *3g, $6.50*

Narvik (70 days) F-1 hybrid. Nantes type. We've described Yaya as an "unbeatable summer carrot," but Narvik presents stiff competition. Dark orange juicy sweet 6–7" roots are slender with tiny supple cores. Nearly flawless Narvik is similar to Yaya but with slightly later maturity and more upright tops. Excellent storing ability for a midseason variety—they keep getting sweeter. A real standout in our field trials. ④

2098 ***A***: *1g, $5.00* ***B***: *3g, $9.50*
C: *6g, $15.50* ***D***: *24g, $46.00*
E: *120g, $178.00*

Red Cored Chantenay (70 days) OP. According to William Woys Weaver, this heirloom originated in France around 1879 and "needs no improvement." Produces 5–7" thick red-orange roots that have had excellent carroty flavor in our September taste tests. Dependable performer does well in heavy soils. The storage carrot of choice for Jay and Polly Armour of Four Winds Farm in Gardiner, NY. Devoted customers at their monthly winter markets esteem its taste. Our second-best–selling carrot. ②

2058 ***A***: *1/8oz, $3.00* ***B***: *1/2oz, $6.50*
C: *1oz, $9.25* ***D***: *4oz, $15.50*
E: *1#, $31.00* ***K***: *5#, $135.00*

Rumba - Organic (72 days) OP. Retired Fedco worker Gary Athenian called Rumba "the best carrot I've ever grown." When he brought it to Nash's Organic Produce in Sequim, WA, they admired its crisp texture and adopted it as their favorite as well, no small distinction as they breed carrots, their most important crop. "Thank you so much for keeping the Rumba carrot alive!" writes Hilary Green of McKenzie Bridge, OR. A straight tapered 6–7" Nantes type that matures slowly and resists oversizing, it is great for fall harvest and winter storage. Its aromatic strong carrot flavor is admittedly not for everyone. Though Roberta also liked it, Gene and CR demurred. But then again, not everyone can rumba. ①

2060 ***A***: *1g, $3.50* ***B***: *3g, $7.00* ***C***: *6g, $10.50*
D: *24g, $23.00* ***E***: *120g, $90.00*

Naval - Organic (72 days) F-1 hybrid. Our enduring search for a Bolero-but-better fall carrot finally lead us to the deep-orange prize. Naval never blinked in multiple year stare-downs with Bolero, tasting better both fresh out of the field and after long storage. It sports a refined slightly more slender and tapered Nantes form at 1" thick and 7–8" long, deep orange inside and out, and with healthy tall bunch-able tops. Delicious sweet full carrot flavor is paired with winning crunch: we had to hold ourselves back from eating all the samples intended for long-keeping comparison! Named for the town of Naval (pronounced nah-VAHL) in Spain. Intermediate resistance to ALTS, BR, TLS, PM, LR. White or yellow certified-organic coating. ④

2062 ***A***: *1g, $5.50* ***B***: *3g, $13.00* ***C***: *6g, $21.00*
D: *24g, $61.00* ***E***: *120g, $250.00*

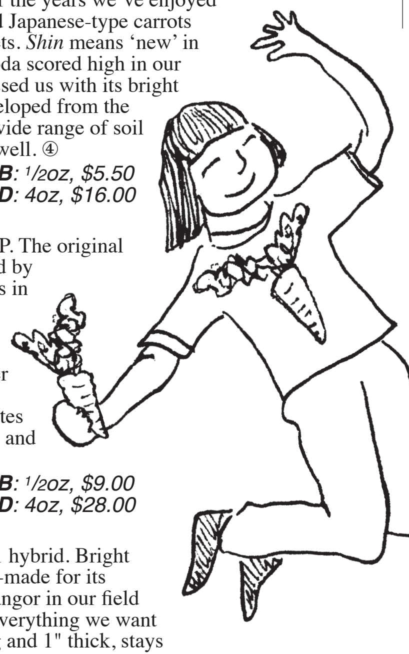
Newhall (74 days) F-1 hybrid. In our spring 2019 storage-carrot tasting, we were hoping to simply confirm newcomer Naval's refined dominance over well-known Bolero. Then out popped uniform thick deep orange 9" Newhalls from their bin, looking as perfect as when we stowed them away last fall. With eyebrows raised in wonder after crisp sweet juicy sampling, we realized we now had two candidates who easily danced Bolero right off the table. Newhall is a bulky continental Nantes-type like Bolero, but with much better long-keeping ability and flavor. The impressive cylindrical crack-resistant roots with a slight taper are matched by strong healthy tall tops. Intermediate resistance to ALTS, BR, TLS, PM, LR.

Newhall - Unpelleted ④

2070 ***A***: *1g, $4.25* ***B***: *3g, $10.00* ***C***: *6g, $17.00*
D: *24g, $48.00* ***E***: *120g, $210.00*

Newhall - Pelleted ④

2071 ***A***: *100 pellets, $3.50* ***B***: *250 pellets, $5.00*
C: *1,000 pellets, $9.75* ***D***: *5,000 pellets, $22.50*
E: *10,000 pellets, $40.00* ***K***: *25,000 pellets, $89.00*



Shin Kuroda (75 days) OP. Over the years we've enjoyed several strains of the stump-rooted Japanese-type carrots that are so popular in Asian markets. *Shin* means 'new' in Japanese. Tender sweet Shin Kuroda scored high in our October taste test, and also impressed us with its bright orange color. These Kurodas, developed from the old Chantenay type, do well in a wide range of soil and weather conditions and store well. ④

2073 ***A***: *1/8oz, $3.00* ***B***: *1/2oz, $5.50*
C: *1oz, $8.00* ***D***: *4oz, $16.00*
E: *1#, $35.00*

Danvers - Organic (75 days) OP. The original Danvers Half-Long was developed by market gardeners in Massachusetts in 1871. This modern improvement features 7" conical orange roots that taper to a point. Easier to grow in heavy soils than the longer more refined types. Broader at the top and more fibrous than the Nantes varieties. Outstanding for cooking and winter storage. ②

2076 ***A***: *1/8oz, $4.00* ***B***: *1/2oz, $9.00*
C: *1oz, $14.50* ***D***: *4oz, $28.00*
E: *1#, $74.00*

Bangor - Organic (75 days) F-1 hybrid. Bright orange bulky Bolero-type is tailor-made for its namesake soil type. We've had Bangor in our field trials multiple years, and it's got everything we want in a fall storage carrot: 8–10" long and 1" thick, stays solid for months, crisp and sweet every time. Resists snapping in packing and shipping. Home gardeners will be happy they hefted these into the cellar once they haul them back out for winter soups or grated root salad. Good color and body when juiced. Healthy tops and an overall vigorous lumberjack of a carrot in all fall crop conditions. Maybe Bangor, Maine's Queen City, could give visiting dignitaries carrots instead of keys to the city.

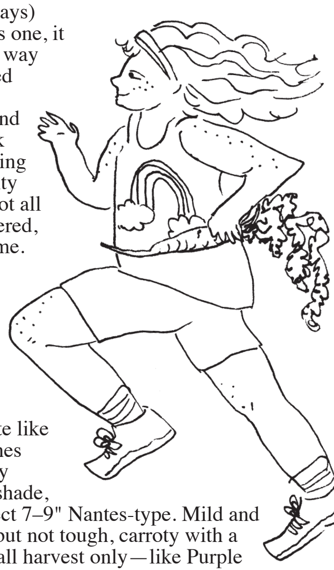
Bangor - Organic Unpelleted ④ **NEW!**

2084 ***A***: *1g, $4.75* ***B***: *3g, $9.25* ***C***: *6g, $14.00*
D: *24g, $50.00* ***E***: *120g, $195.00*

Bangor - Organic Pelleted ④

2082 ***A***: *100 pellets, $3.75* ***B***: *250 pellets, $5.50*
C: *1,000 pellets, $10.00* ***D***: *5,000 pellets, $23.00*

CARROTS of Other Colors



Over the Rainbow Blend (48-75 days) If there's a better carrot blend than this one, it must be somewhere over the rainbow, way up high. We took a good formula called Rainbow Mix, especially strong in the lighter shades of yellow and orange, and boosted it with our own choice of dark orange, purple and red varieties. In doing so, we sacrificed some of the uniformity our European supplier maintains, so not all the roots are perfectly slender and tapered, nor will they all mature at the same time. But oh the colors! ④

2099 ***A***: *1g, $4.50*
B: *3g, $10.00*
C: *6g, $16.00*
D: *24g, $48.00*
E: *120g, $205.00*

Redsun (70 days) F-1 hybrid. We've trialed many a red carrot and most taste like sandy kerosene. Praise in bright bunches to breeder Bejo for bringing us yummy **cinnabar-red** Redsun. Such a lovely shade, through to the interiors of a near-perfect 7–9" Nantes-type. Mild and sweet with a slight tart zing, crunchy but not tough, carroty with a spring in its step. Recommended for fall harvest only—like Purple Haze (Bejo's other feather in their colorful carrot cap), hot weather and lack of water can shift the flavor to *blech*! ④

2095 ***A***: *1g, $5.00* ***B***: *3g, $11.00* ***C***: *6g, $18.00*
D: *24g, $50.00* ***E***: *120g, $195.00*

Purple Haze (70 days) F-1 hybrid. Again 2006 AAS winner Purple Haze outperformed Purple Dragon in our trial. Enhanced by a texture almost as refined as the best orange carrots, it has none of Dragon's harshness. **Purple with orange stretch marks and a vivid orange core**, Haze will really draw crowds to your stand. Its raw flavor, rated average, improves with cooking, though color fades. The 7" tapered roots store fairly well. This first purple Imperator-type carrot may make you want to kiss the sky! Contains 0.5% orange off-types. ④

2096 ***A***: *1g, $4.85* ***B***: *3g, $10.75* ***C***: *6g, $16.00*
D: *24g, $48.00* ***E***: *120g, $200.00*

White Satin (70 days) F-1 hybrid. Satin, a Nantes-Imperator cross, is by far the best **white carrot** we've trialed. Hillary Nelson of Canterbury, NH, says its classic 8" roots are "some of the most perfect looking carrots I've grown—straight and long," with the ideal carrot shape in a pleasing creamy white. Sweet and crunchy when eaten raw, it has none of the wild carrot taste or hairiness typical of other white carrots. When cooked it is sweet and mild with a smooth texture. Develops 1" green shoulders when mature. Medium core. Contains 2% orange off-types. ④

2097 ***A***: *1g, $5.25* ***B***: *3g, $11.25*
C: *6g, $17.00* ***D***: *24g, $45.00*

Yellowstone (72 days) OP. Yellowstone boasts a crisp clean flavor that has shown up well in our recent taste tests. Big-shouldered **light yellow roots with large greenish-yellow cores** grow up to 8" long, averaging 7". Productive in a wide variety of soils. Research shows that yellow carrots contain xanthophylls, pigments similar to beta carotene, that help develop healthy eyes and may help prevent lung and other cancers. ④

2063 ***A***: *1g, $4.00* ***B***: *3g, $8.00* ***C***: *6g, $13.00*
D: *24g, $30.00* ***E***: *120g, $115.00*

Scarlet Keeper - Organic (85 days) OP. A stalwart storage carrot whose flavor improves with time. These 7–9" heavy cylindrical roots with broad red shoulders, large deep orange cores and blunt tips store well into early summer. Good for fresh eating and juicing, too. They're so big that only a few make plenty of sweet carroty juice with a flavor profile similar to our warehouse favorite, Mokum. ① **BACK!**

2079 ***A***: *1g, $3.75* ***B***: *3g, $7.50* ***C***: *6g, $11.00*
D: *24g, $30.00* ***E***: *120g, $125.00*

How to Succeed with Pelleted Carrot Seed

Incorrect use of pelleted seed negates the benefits its higher cost reflects. Success hinges upon ideal soil temps (65–75°) and maintaining proper soil moisture. All carrot seed, but especially pelleted seed, needs consistent moisture. A deep soaking after seeding will saturate and break apart the clay pellet. After initial watering, it remains of utmost importance to keep soil from drying out.

Home gardeners: Hand sow pelleted seeds every 1". Lay wet newspaper on top of the seed bed for 5–7 days to keep soil moist during emergence.

Commercial growers: Pelleted carrot seed is best used with a precision seeder. The pellets neatly fit into the singulation mechanisms of the seeder to drop one seed at a time to a set spacing. This minimizes labor-intensive thinning, giving commercial growers added control over this high-maintenance crop. If you don't have a precision seeder, use raw carrot seed. Either way, cover beds with row cover (laid flat) for 5–7 days to keep soil moist until seeds sprout.

CELERIAC & CELERY

Apium spp.

- About 1925-3000 seeds/g.

- Days to maturity are from date of transplant.

Culture: Must be started indoors in early spring, 10–12 weeks before transplant. **Minimum germination temperature 40°, optimal range 70–75°, needs fluctuating temperatures.** After germination, ambient air temperatures can be reduced but remain above 55° until transplanting. For one week prior to transplanting, go light on watering. Transplant outdoors when daytime temps are above 55° and the nights do not dip below 40°. Young seedlings grow slowly, requiring rich moist soil to survive. Regular rainfall or irrigation is necessary for good growth, flavor and yields. Celery withstands light fall frosts but gets kayoed by serious cold.

CELERY *A. graveolens*

Green Cutting Celery (80 days) OP. This beautiful herb with bold aroma and celery flavor is bred for leaf production and is often easier to grow than standard celery. Use to flavor soups, stews, salads and roasted vegetable dishes. The hollow stems and leaves can be used fresh or dried. ④

3615 ***A***: *0.2g, $2.95* ***B***: *0.4g, $3.75* ***C***: *1g, $5.95*
D: *4g, $9.85* ***E***: *28g, $19.95*

Ventura - Organic/BD (80 days) OP. Ventura takes the difficulty out of growing celery. Glossy bright green plants 28–30" tall have 12" stalks and well-developed hearts. Widely adapted. “Vigorous growth, good taste, very little punkiness in the center,” praises Nicholas Panjiris. Develops beautiful thick crisp stalks with rich never-harsh flavor even in less-than-ideal conditions. Easy to grow as long as young plants receive adequate moisture, a necessity for steady growth. Irrigate if necessary. Some tolerance to fusarium, but susceptible to boron deficiency. Certified-biodynamic seed. ①

3624 ***A***: *0.1g, $3.95* ***B***: *0.2g, $6.25* ***C***: *0.4g, $9.50*
D: *2g, $26.00* ***E***: *10g, $93.00*

Redventure - Organic (84 days) OP. Inspired cross of Giant Red Celery and Ventura by Frank Morton in the early 1990s, now a stabilized cultivar. This marriage of opposites brings out the best of both partners and hides the flaws. Wanting to offer red celery, we trialed heirloom Giant Red but found it tough, stringy and too strong for modern palates. However, when combined with Ventura, the harshness and textural flaws disappeared into a delicious chewy stem with plenty of interior red color. Not as tender as Ventura, but with an enhanced flavor that will really enliven soups, salads and casseroles. **OSSI** Ω ①

open source seed initiative

3630 ***A***: *0.2g, $3.50* ***B***: *0.4g, $4.75* ***C***: *1g, $7.00*

Tango - Organic (90 days) OP. The dance originated in South America but the celery seed is from Bejo in Holland. June Zellers and the late Adam Tomash, who grew astounding celery, selected Tango as the star of one trial. Impressed with the variety’s compact architecture and absence of punky centers, they grew massive dense plants even in close spacing. They said Tango is almost as nice as Ventura with not quite as good disease resistance. Once you taste its smooth tender sweet nearly stringless stalks, you’re going to want this dance. Note: Under conditions of fast growth, high temperatures and moisture it may exhibit a harmless condition that mimics bacterial wilt. White or yellow certified-organic coating. ④

3634 ***A***: *0.1g, $5.35*
B: *0.2g, $8.95*
C: *0.4g, $13.00*
D: *2g, $49.00*

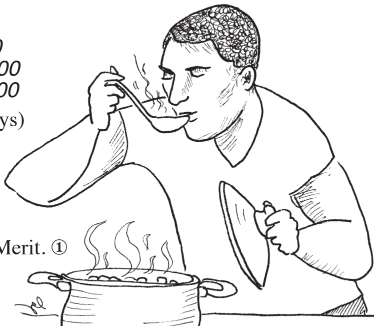
Thanks for the helpful hints on seed saving. You’ve convinced me to save more, order less.
– Sarah from New Haven, CT

CELERIAC *A. g.* var. *rapaceum*

The frog prince of root vegetables, celeriac is a staple in central and eastern Europe. Also called knob celery and celery root. Easier to grow than celery; an early start indoors is essential for good yields. Its nutty parsley-celery flavor is improved by light fall frosts. Can be stored up to 6 months in moist sand or damp leaves in the root cellar. Great raw for winter slaws and salads, it may be boiled, mashed or braised to enhance meat, fish and poultry.

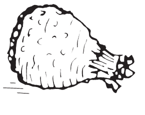
Balena - Organic (95 days) F-1 hybrid. We had a whale of a time trialing this celeriac, which impressed us two years in a row. Slightly oblong 3–4" roots have nice mild flavor and dense white interiors that resist hollow heart and pithiness. Plants are vigorous and upright with improved bolt tolerance. We know not all that may be coming, but with these great white roots tucked into the root cellar, we’ll go to it laughing. ④ **NEW!**

3644 ***A***: *50 seeds, $3.95*
B: *100 seeds, $5.25*
C: *500 seeds, $16.00*
D: *1,000 seeds, $23.00*
E: *5,000 seeds, $97.00*



Monarch - Organic/BD (100 days) OP. A classy early celeriac, high-yielding with relatively smooth roots, uniform white internal color and splendiferous eating quality. Very similar to Brilliant. Winner of RHS Award of Garden Merit. ①

3648 ***A***: *0.1g, $4.25*
B: *0.2g, $7.50*
C: *0.4g, $11.00*
D: *2g, $38.00*
E: *10g, $125.00*



Chard: see pg 33.
Chicory: see pg 33.
Collards: see pg 40.

Why Is Germination Taking So Long?

We’ve been hearing from some growers that reliable germinators are taking longer than usual to sprout. One of our growers planted tomato seeds under optimal conditions and, rather than sprouting in 5–14 days as expected, they took 4½ weeks, still with 90% germination.

This germination delay is called dormancy, a state in which a seed is unable to germinate despite optimal conditions. Dormancy is a natural survival strategy of many species. Instead of germinating all at once, seeds sprout over weeks, months, or even years—this reduces risk of a whole population succumbing to a single unfavorable weather event, like a late frost or a spring drought, thereby increasing success of the species as a whole.

Why is seed dormancy showing up in plants that were previously so reliable? One theory points to the erratic weather patterns and increasing temperature of the changing climate. When unusual weather conditions coincide with seed development in the mother plant, the seeds can be affected. If the mother plant undergoes stress while growing seed, the resulting seeds can have higher rates of dormancy and decreased vigor. Cooler-weather crops seem to be most susceptible to these issues as temperatures increase. However, as with the tomato seed example, warm-weather crops are not immune.

Although dormancy as a survival mechanism is not a bad thing for the plant, it can be frustrating for growers who plan their seeding schedule to take optimal advantage of their growing season, especially for those of us with shorter northern seasons. This trend is just starting to be studied, and many questions remain unanswered. As with all things in the garden (or life!), it is wise to practice patience and leave room for the unexpected. Don’t dump those seed trays yet!

Seed Longevity

Type	years
Beans	2-3
Beets/Chard	3-5
Brassicas	3-5
Carrots	2-3
Celery	2-3
Corn	2-3
Cucumber	5-10
Eggplant	2-3
Leek	2
Onion	1
Lettuce	2-3
Melon	5-10
Mustards	3-5
Pea	2-3
Pepper	2-3
Radish	3-5
Spinach	2-3
Squash/Pumpkin	2-5
Tomato	5-10

Seed Storage: Stored properly, most seed will last for several years. Humidity and heat are the enemies of seed longevity. To optimize seed viability, never leave them in a humid, warm or sunny place, even for a few hours. Ideal moisture content for most seed is only 10–12%. (Those little silica packs that come with new shoes or packaged seaweed can be dried out in a warm oven and reused for seed storage.) Store dry seeds in a sealed glass or metal container in your freezer or other cool place. When you remove the container from the freezer, allow it to come to room temperature before opening to prevent condensation on the seeds. Never allow the sum of temperature plus relative humidity where seed is kept to exceed 100.

When in doubt, try germinating a few seeds in moist paper towels. Older, less vigorous seed may germinate more slowly and be more sensitive to less-than-ideal soil temps. Sowing thickly is a good idea when using up old seed.

CORN

Zea mays

- About 85-200 seeds/oz. Seeds per packet vary, open-pollinated selections avg. 100 seeds/oz, normal sugary varieties 140 seeds/oz, and SE cultivars 150-160 seeds/oz.

- Days to maturity are from emergence after direct sowing; for transplants, subtract 20 days.

Culture: Untreated sweet corn seed will not germinate in cold wet soil. Be patient and wait till soil warms to at least 60° before sowing, or start seedlings indoors and transplant at 3–6" before taproots take off. **Minimum soil temperature 55°, optimal temperature range 65–85°.** Tender, will not survive frost. Heavy nitrogen requirements. Plant seeds 3" apart in rows 3' apart. Plant in blocks of at least 4 rows to ensure adequate pollination, essential for good tip fill. Thin to 1' apart. When corn is knee-high, sidedress with Azomite (p. 134) or alfalfa meal (p. 135) to stimulate growth. If you lack sufficient space for enough plants for good pollination, try hand-pollinating by cutting off the tassels and shaking their pollen onto the silks.

Sweet corn is ready 18–24 days after the first silks show, the exact time dependent on the weather in the interim. Press ears 2" from the tips to assess kernel fullness. Harvest when the kernels are plump, soft, tender and filled with a milky juice. Most sugary-enhanced varieties have an optimal picking window of 5–7 days, but some standard selections hold only 1–2 days.

Diseases:

MDMV	Maize Dwarf Mosaic Virus	SCLB	Southern Corn Leaf Blight
NCLB	Northern Corn Leaf Blight	ST	Stewart's Wilt
R	Rust		

Pests: See sidebar below. A high fence or good dog are the best critter deterrents.

YELLOW SWEET CORN

Cafe (68 days) **Synergistic F-1 hybrid.** For many of us, the first and most important stop of the day is our local coffee purveyor. Super early-bird Cafe is truly the first stop in the corn patch, and this ain't no bland swill, folks! In our 2016 corn trials, Cafe sold us on its stellar brew of (kernel) depth, nuanced texture and honest sweetness. Cafe's 14–16 bright pure yellow rows fill to the tip on a hefty 8" ear. While most growers don't expect much from early types, Cafe brings midseason size, flavor and quality right out of the gate, all combined with superb cold-soil performance. Great coffee is a life-giving reward for getting out of bed each morning, and excellent early corn keeps gardeners charging through those long summer days. ②

506 ***A**: 1oz, $5.50* ***B**: 8oz, $23.00*
***C**: 1#, $40.50* ***D**: 5#, $165.00*

Ashworth - Organic (72 days) **OP.** A composite of early varieties originally developed by the late Fred Ashworth of St. Lawrence Nurseries and marketed by Johnny's Selected Seeds starting in 1978. According to legend, Ashworth originally named his variety "Rat Selected" in honor of the rodents who broke into his seed storage room and alerted him to certain kernels that they preferred. Its short stalks have 6–7" yellow ears with good flavor. Be sure to harvest it at peak milk stage—like much open-pollinated corn it does not hold quality for long in the field. Germinates well in cool soil. ①

516 ***A**: 1oz, $4.00*
***B**: 8oz, $16.50*
***C**: 1#, $25.25*
***D**: 5#, $108.00*

Bodacious RM (77 days) **Homozygous sugary enhanced F-1 hybrid.** A bold flavor for a bold name, Crookham's Bodacious RM dependably produces outstanding 8" ears with exceptionally sweet corny tender yellow kernels. Avowed corn fanatic Eric Sideman's choice for midseason delight. Similar to the original Bodacious but with enhanced disease resistance. Some report it to be a fussy germinator. Resistant to MDMV and R, tolerant to ST. ②

541 ***A**: 1oz, $4.45* ***B**: 8oz, $16.25* ***C**: 1#, $28.50*
***D**: 5#, $105.00* ***E**: 10#, $195.00*

Incredible RM (85 days) **Homozygous sugary enhanced F-1 hybrid.** Crookham's superior late-midseason gourmet selection was a full tassel-length ahead of the competition at our trial, where its handsome 8" tip-filled yellow ears were incredibly scrumptious. Incredible is not merely sweet, it really delivers a deep corn taste. Good husk protection and tolerance to ST, enhanced resistance to MDMV, SCLB and R. Poor cold-soil emergence. ②

561 ***A**: 1oz, $4.45* ***B**: 8oz, $16.25* ***C**: 1#, $25.50*
***D**: 5#, $105.00* ***E**: 10#, $200.00*

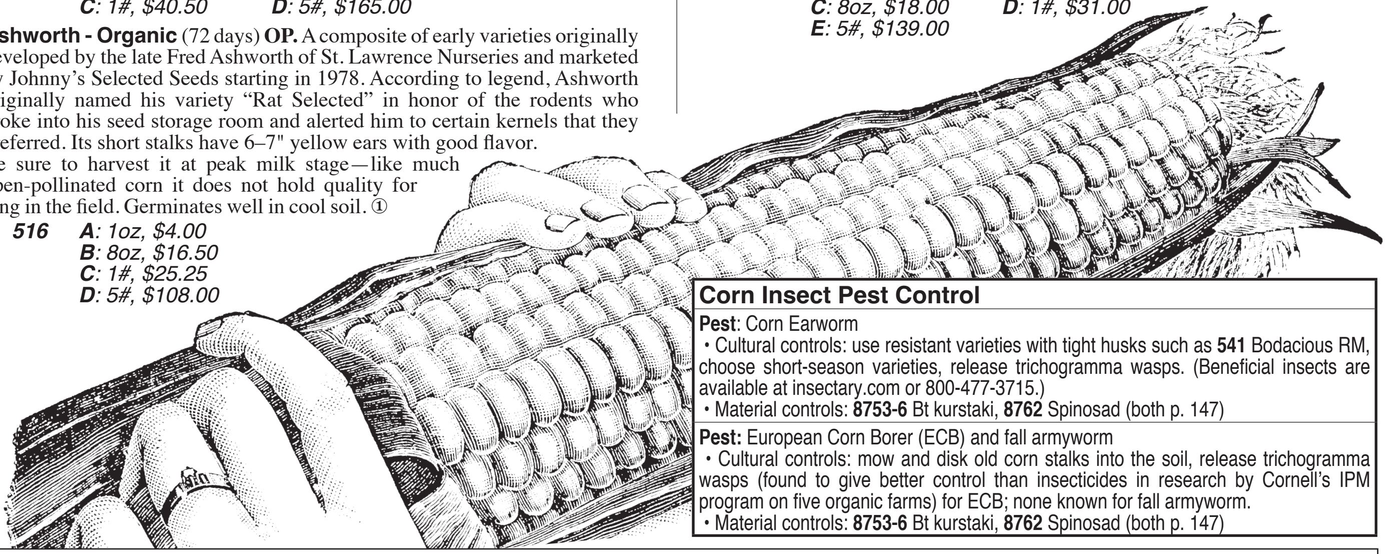
BICOLOR SWEET CORN

Latte (68 days) **Synergistic F-1 hybrid.** We know what you're thinking: Why would I grow a corn named after diluted coffee? But after our taste test, even staff skeptics were won over: "WOW, Corn plus Sugar!" "Beautiful bicolor, best flavor!" and "Full ears, full kernels!" Every tip was filled out on these super-early extra-fancy 8" ears with 14 rows. Such high quality and great taste is normally reserved for a later-maturity slot, but why not start the first corn picking with the good stuff? While it often bears only a single ear per stalk, Latte is easy to grow and excels at cold-soil emergence. So, have a Latte and breathe a sigh of sweet (corn) relief. We suggest staggered plantings for successive harvests. Intermediate resistance to R and ST. ②

572 ***A**: 1/2oz, $4.50* ***B**: 2oz, $14.00* ***C**: 8oz, $26.00*
***D**: 1#, $45.00* ***E**: 5#, $206.00*

Espresso (70 days) **Synergistic F-1 hybrid.** Quicker than quicksilver, fleeter than Fleet, springier than Spring Treat, Espresso bursts out of the gate and flashes to the finish. Has become Eric Sideman's new favorite early sweet corn; he says it has better flavor than Spring Treat. He seeds Espresso in the last week of April and transplants to the garden the first week of May using row covers for added warmth and frost protection. Direct seeding without row covers, trialer Donna Dyrek in 2012 in Zone 4 Hartland, ME, clay loam, enjoyed her first ears on Aug. 18. Though not as long as the midseason corns, these 6" ears retained the good balance between sweet and corny that will satisfy your early corn craving. Tolerates R, ST. ②

574 ***A**: 1/2oz, $3.95* ***B**: 2oz, $10.15*
***C**: 8oz, $18.00* ***D**: 1#, $31.00*
***E**: 5#, $139.00*



Corn Insect Pest Control

Pest: Corn Earworm

- Cultural controls: use resistant varieties with tight husks such as **541** Bodacious RM, choose short-season varieties, release trichogramma wasps. (Beneficial insects are available at insectary.com or 800-477-3715.)
- Material controls: **8753-6** Bt kurstaki, **8762** Spinosad (both p. 147)

Pest: European Corn Borer (ECB) and fall armyworm

- Cultural controls: mow and disk old corn stalks into the soil, release trichogramma wasps (found to give better control than insecticides in research by Cornell's IPM program on five organic farms) for ECB; none known for fall armyworm.
- Material controls: **8753-6** Bt kurstaki, **8762** Spinosad (both p. 147)

Sweet Corn at a Glance

Types of Sweet Corn:

Normal Sugary (su): standard varieties with traditional sweet corn texture & flavor. Sugar converts to starch quickly, so eat them within a few days. Tend to have high yields and germinate well in cool soils.

Sugary Enhanced (se): more sugar than **su**, tender kernels and slightly longer storage time.

Supersweet (sh2): 4 to 10 times the sugar content of **su** and **se**. Conversion of sugar to starch occurs at a much slower rate. Stays sweet long after harvest. Extra shriveled seed does not germinate well in cool soil.

Synergistic: more sugar than **se**. Very tender with long harvest and storage windows. Can be homozygous or heterozygous **se** with added **sh2** kernels.

	variety	days	color	**type** (see left)	height	ear length	# rows
506	Cafe	68	yellow	Synergistic	60-72"	8"	14-16
516	Ashworth OP	72	yellow	Normal Sugary	60"	6-7"	12
541	Bodacious RM	77	yellow	Sugary Enhanced	87"	8"	18
561	Incredible RM	85	yellow	Sugary Enhanced	90"	8"	18
572	Latte	68	bicolor	Synergistic	48-72"	8"	14
574	Espresso	70	bicolor	Synergistic	72"	6"	12-16
582	Ambrosia	75	bicolor	Sugary Enhanced	78"	8"	16
590	Cappuccino	78	bicolor	Synergistic	72-84"	8"	14-16
592	Sparkler	78	bicolor	Synergistic	84"	8-9"	16-18
636	Luther Hill OP	82	white	Normal Sugary	48"	3-6"	12
660	Nirvana	75	bicolor	Supersweet	83"	8"	16-18
661	Yellowstone	76	yellow	Supersweet	72-84"	8"	16
595	Moonshine	78	yellow	Supersweet	84"	8"	16-18

more BICOLOR SWEET CORN

Ambrosia (75 days) **Homozygous sugary enhanced F-1 hybrid.** Ah! Those heavenly moments of high summer! Out of the pot come steaming ears of bicolor bliss covered with dewdrops of condensation. Into my mouth where the tender corny kernels mix their sweetness into a total sensation of ambrosial delight. Our corn tasters, for all their enjoyment of the process, are a contrary lot, so when they come to consensus, as they did on Ambrosia, we knew we'd found something good. Ambrosia is perfect for a wide range of markets, from fresh home-garden use to long-distance shipping. The 6½' plants show good early vigor. In stressful conditions the tips don't always fill. Tolerates ST. ②

582 ***A**: ½oz, $3.50* ***B**: 2oz, $9.75* ***C**: 8oz, $18.25*
***D**: 1#, $31.00* ***E**: 5#, $120.00*

Cappuccino (78 days) **Synergistic F-1 hybrid.** Farmer Hannah Hamilton asks, "Who is this barista-gone-corn-breeder?" The answer is Seneca Vegetable Research of Hall, NY, breeders of eastern-adapted cultivars. However, we can't figure out the Starhusks-themed variety names either (Espresso, Cafe, Latte). With its strong flavor and performance, bicolor Cappuccino moves into the slot abandoned by Lancelot. Large full sweet tender creamy kernels announce peak corn season has arrived. The well-filled 8" blunt ears appear overloaded with 14–16 rows. In the 2016 drought, the sturdy thick stalks proved stress tolerant, allowing extended picking and second ear production. Rest assured we aren't gentrifying the corn patch—we're just looking for the tastiest ways for you to spend your Cornbucks. Intermediate resistance to ST, R and NCLB. ②

590 ***A**: ½oz, $4.35* ***B**: 2oz, $14.25* ***C**: 8oz, $27.50*
***D**: 1#, $49.25* ***E**: 5#, $222.50*

Sparkler (78 days) **Synergistic F-1 hybrid.** Put a sparkle on your face next August with this handsome high-yielding bicolor. The long fat pointy ears, up to 9" with up to 18 rows, speak loudly of abundance and satisfy the most discriminating of palates. Plenty of good husk protection, long flag leaves and tillers for market growers who demand a strong easy-to-harvest plant. Tolerates R and ST. ②

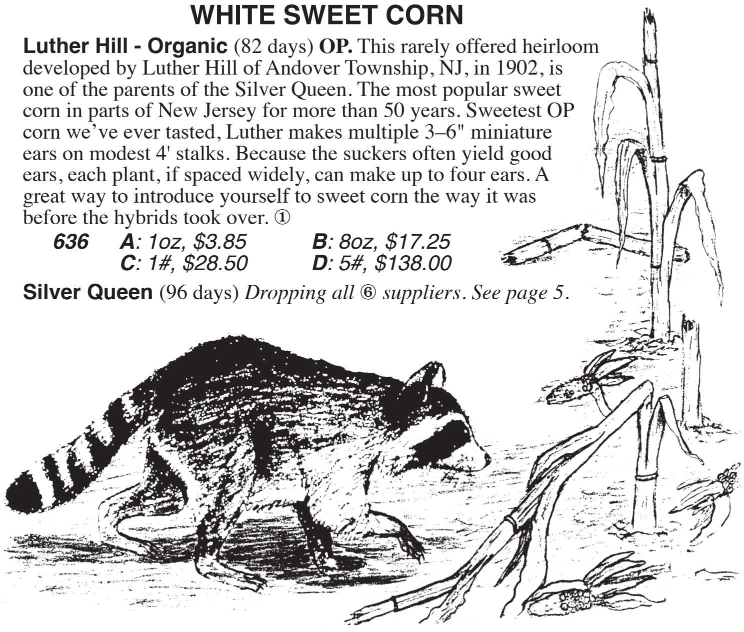
592 ***A**: ½oz, $3.75* ***B**: 2oz, $9.95* ***C**: 8oz, $21.25*
***D**: 1#, $40.00* ***E**: 5#, $175.00*

WHITE SWEET CORN

Luther Hill - Organic (82 days) **OP.** This rarely offered heirloom developed by Luther Hill of Andover Township, NJ, in 1902, is one of the parents of the Silver Queen. The most popular sweet corn in parts of New Jersey for more than 50 years. Sweetest OP corn we've ever tasted, Luther makes multiple 3–6" miniature ears on modest 4' stalks. Because the suckers often yield good ears, each plant, if spaced widely, can make up to four ears. A great way to introduce yourself to sweet corn the way it was before the hybrids took over. ①

636 ***A**: 1oz, $3.85* ***B**: 8oz, $17.25*
***C**: 1#, $28.50* ***D**: 5#, $138.00*

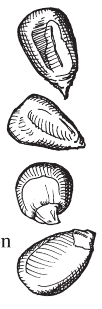
Silver Queen (96 days) *Dropping all ⑥ suppliers. See page 5.*

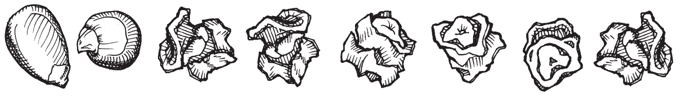


We Test Sweet Corn, Beet and Chard Seed for Transgenic Contamination

To help ensure the purity of our seed, we have for the past few decades employed industry leader Foodchain ID (formerly Genetic ID) to test samples of our sweet corn lots for the presence of transgenic contamination. Because of the risks posed by production of genetically engineered Roundup Ready beets, we added beet and chard varieties to our GE testing program.

We remove any seed lots that test positive for transgenic contamination. A negative test result does not guarantee genetic purity but improves the chances seed is uncontaminated. The tests are expensive, but in a time of genetic roulette they are necessary, though not sufficient. Only if the seed trade takes an adamant position that it will not tolerate GE contamination in products can we maintain any integrity in our seed supply.





SUPERSWEET CORN

For decades, Fedco has been a firm proponent of "eating quality" in sweet corn with flavor, texture and kernel depth as our in-house metrics. We're a "corny" flavor bunch, dismissing sweetness as the sole measure of breeding progress. Until recently, we hadn't encountered eating excellence in a Supersweet (sh2) variety. Breeders have now balanced the extra-sweetness with tenderness, creaminess and full flavor. With the sh2 gene, conversion of sugar to starch occurs at a much slower rate, so corn stays sweet long after harvest.

Culture: Supersweet types germinate poorly in cool soils. Wait until soil temps exceed 65° for direct seeding—mid-June in central Maine.

Supersweets require 300' isolation from all other corn types to prevent the kernels of other corns from becoming starchy and tough. If you don't have space to isolate, choosing a Supersweet means foregoing other corn types.

Nirvana (75 days) **Supersweet F-1 hybrid.** Bicolor, 8" ears, 16-18 rows. We've been saying "Nevermind" to Supersweet corn for ages: the early years of sh2 breeding never came close to capturing the flavor and tenderness we demand. But a select few progressive Supersweets brought balanced excellence to our attention in our central Maine trials. At your first bite into the crisp but tender kernels, Nirvana's wash of full corn flavor hits and persists. The bold sh2 sweetness and perfect flavor swirl. Holding quality in the field and after harvest is superb. Do not direct-seed until soil temps exceed 65°. *Isolate from all other corn types by 300 feet.* ②

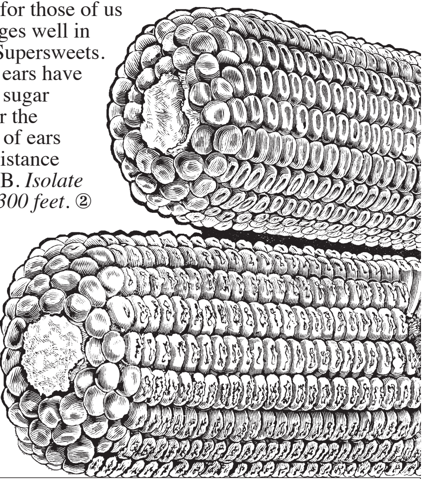
660 ***A**: ½oz, $5.00* ***B**: 2oz, $15.00* ***C**: 8oz, $34.00*
***D**: 1#, $62.00* ***E**: 5#, $273.00*

Yellowstone (76 days) **Supersweet F-1 hybrid**. Yellow, 8" ears, 16 rows. Yellowstone's yield per plant is breathtaking: nearly every stalk sets three ears, most full-sized and filled to the tips, and all ripening to great eating quality. This was true even in Maine's extra dry and hot 2020 summer. Thick ears with rounded tips and gleaming yellow kernels that are deep, large, tender with an initial snap to the bite, resonating corny flavor and extra sugar. Very vigorous 6–7' plants have broad long green leaves with ears concentrated at 2–3' high on sturdy stalks. All this vigor lends the ears thick well-attached handles. As you harvest, put one hand on the stalk so it doesn't break. Intermediate resistance to NCLB. Do not direct-seed until soil temps exceed 65°. *Isolate from all other corn types by 300 feet.* ②

661 ***A**: 1oz, $7.00* ***B**: 8oz, $28.00* ***C**: 1#, $48.00*

Moonshine (78 days) **Supersweet F-1 hybrid.** Yellow, 8–10" ears, 16–18 rows. We have yet to launch our hootch-trialing program, so we can't say if this corn lives up to its name in that regard. We do know it's the preferred full-season Supersweet corn for those of us with slow springs, as it emerges well in cool soil compared to other Supersweets. Bright yellow short-shanked ears have deep full kernels with a high sugar level that does not overpower the flavor. Good husk protection of ears on 7' plants. Intermediate resistance to rust (Rp1-d), ST and NCLB. *Isolate from all other corn types by 300 feet.* ②

595 ***A**: ½oz, $4.70*
***B**: 2oz, $13.65*
***C**: 8oz, $39.25*
***D**: 1#, $66.00*
***E**: 5#, $300.00*



GMO Update: Oregon Senate Bill 789, Small Victory for Willamette Valley Seed Producers

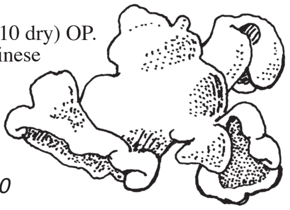
The Willamette Valley in central Oregon is a phenomenal place to grow seed, and Fedco partners with many seed growers in that region. The area is particularly important for Brassica seed production, supplying more than 90% of many brassica seed varieties to growers all over the world.

Unfortunately, it is also a desirable place to grow genetically modified canola. GMO crops pose serious threats to seed crops due to cross-contamination as well as increased pest and disease pressure. A protective cap that limited canola production in the region to 500 acres expired in June 2023. On June 25, the Oregon Senate Bill 789 passed, extending existing protections. The original goal of this bill was to make these protections permanent, but the legislation was amended—as part of negotiations to end this summer's Republican walk out—to add another sunset of July 2024 and mandate that the Oregon Department of Agriculture lead a work group of stakeholders on both sides of the issue to come up with possible "co-existence" solutions by September 30, 2023.

Fedco endorsed SB789. Unlimited canola production in this area would be detrimental to many seed farmers with whom we have longstanding relationships. In addition, sourcing GMO-free affordable high-quality Brassica seed would become substantially more difficult for Fedco because we would have to do expensive GMO tests on the majority of the Brassica seeds we carry. Therefore, we strongly support the limit and mapping of GMO canola production in the Willamette Valley.

POPCORN

Seed counts vary widely among varieties.



Japanese Hulless Popcorn (72 days baby, 110 dry) OP. For itty bitty baby corns, the kind you find in Chinese cuisine, harvest the fingerlike ears five days after silks appear. Delicious in hors d'oeuvres, stir-fries and pickles. For popcorn, let ears mature to their squatty 4" size. The 5' plant bears 3–6 ears with white kernels. ②

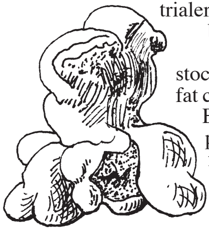
663 ***A**: 1oz, $3.75* ***B**: 8oz, $22.00*
***C**: 1#, $40.00*

Robust 98114W White (98 days) F-1 hybrid. Taller, a bit later, higher yielding with larger kernels and ears, and greater ease of popping than the old Robust 21-82W, this midseason white hulless popcorn has great eating quality—crisp and tender, light and flaky. The 6' plants have the stalk strength to survive September storms intact. ②

671 ***A**: 1oz, $4.50* ***B**: 8oz, $14.25*
***C**: 1#, $22.00* ***D**: 5#, $90.00*

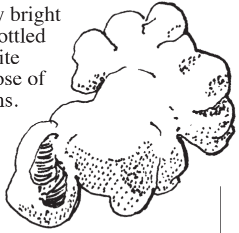
Dakota Black - Organic (100 days) OP. Outstanding in our observation plots. Compact plants with one ear each. Our tasters rated the popcorn "Oh, so scrumptious." In addition to their popping qualities, Dakota Black's 4½" dark maroon-black ears with 15 rows are extremely decorative, a must for the fall roadside stand. 4' stalks. **OSSI** Ω ①

675 ***A**: 1oz, $5.50* ***B**: 8oz, $24.50*
***C**: 1#, $40.50* ***D**: 5#, $159.00*



Pennsylvania Dutch Butter Flavored - Organic (102 days) OP popcorn so good on its own that you won't need to add any butter. Our trialers agreed that it was the best they'd ever tasted: creamy, buttery and delicious. Incredibly green and healthy 8' plants with very long dark green leaves set two 4–6" stocky ears per stalk, with 26–28 rows (occasionally 22) of fat creamy white kernels. Thanks to our friends at Southern Exposure Seed Exchange for enabling us to offer this pre-1885 Pennsylvania Dutch heirloom. SESE was the first to bring this variety to commerce, in 1988. ①

677 ***A**: 1oz, $4.50* ***B**: 8oz, $16.00*
***C**: 1#, $27.00* ***D**: 5#, $112.00*
***E**: 10#, $210.00*



Calico (105 days) OP. An heirloom dual-purpose corn with 5–8" ears that look like smaller versions of Indian corn. The shiny bright ears come in an array of colors, with red, yellow and mottled rosy-brown most common, but brown, purple, blue, white and other combos possible. Kernels are smaller than those of most Indian corns, but larger than conventional popcorns. Decorative and edible: you can hang it on your door in fall and pop the very same batch on Thanksgiving. About 200 seeds/oz. ①

679 ***A**: 1oz, $4.95*
***B**: 4oz, $12.25*
***C**: 1#, $35.25*

FLINT & FLOUR CORNS

Average 100-160 seeds/oz. Days to maturity are for dry stage.

Painted Mountain - Organic (85 days) OP. Flour corn. Short efficient 5' plants, long thin 6–7" cobs. Painted Mountain is the hardiest, fastest-maturing grain corn in the world. Dave Christensen has spent over 40 years developing it in the mountains of Montana from a diverse gene pool of about 80 strains of native corns. Contains vivid golds, oranges, reds and purples, about every shade of color known to corn. High in anthocyanins and has amazing 13% protein levels. Bred to withstand high winds, cold temperatures, intense heat and drought, and to survive global warming. Painted Mountain grows where no other corn can. Ω ①

680 ***A**: 75 seeds, $4.75* ***B**: 300 seeds, $16.00*
***C**: 900 seeds, $35.00* ***D**: 4,500 seeds, $145.00*
***E**: 13,500 seeds, $315.00*

Cascade Ruby-Gold Flint - Organic (85 days) OP. Breeder Carol Deppe brings us this very early and productive true flint corn with big seeds on medium-narrow cobs that dry down quickly. Superb for cornbread, johnny cakes and polenta. Ears, 8–12" long with 8–12 rows, are solid-colored but husking each one reveals a surprise: red, red-brown, dark red, orange-gold, maple-gold, gold or yellow! Interior kernel color is gold. Each color produces a different flavor of cornbread; red shades have a richer flavor, while yellows are milder. All colors are great! Carol's recipes can be found in her book *The Resilient Gardener* (see page 165 of our books section.) She bred this corn by crossing Abenaki Calais with Byron Flint, selecting for a variety that could get growers through the good times and the bad. Does well even in downright cold summers. Good husk coverage provides protection against birds and corn earworms. Also beautifully ornamental. **OSSI. Breeder Royalties.** ①

681 ***A**: 1oz, $5.00* ***B**: 8oz, $24.00*
***C**: 1#, $37.00* ***D**: 5#, $131.00*

more Flour and Flint Corn

Abenaki Calais Flint - Organic (88 days) OP. Developed by the northern Vermont Abenaki tribe and selected for generations to produce 7–9" ears that are long, thin and cylindrical, with an even 8 rows all the way to the shank. This form is valuable for drying early in the short Northeast season, before it can spoil from early freezes, surviving even the legendary summer of 1816 ("Eighteen hundred and froze to death.") The ears are either solidly golden yellow or a beautiful dark maroon, with some skewing a bit toward orange shades. If you grind each color separately you'll notice flavor variations—all of it is delicious. Reliable and nutritious. Breeder Dave Christensen holds great appreciation for this eastern "brother" to **680** Painted Mountain, calling it "the toughest of all the Eastern corns." **Indigenous Royalties.** ①

682 ***A**: 1oz, $5.00* ***B**: 8oz, $25.00* ***C**: 1#, $38.00*
***D**: 5#, $135.00* ***E**: 10#, $180.00*

Blue Mountain Flint - Organic (88 days) OP. This predominately dark blue 8-row flint corn grows very much like **680** Painted Mountain, which is 50% of its ancestry. The other half comes from a composite of 20 of the fastest-maturing New England flint corns. The short efficient native-type plants produce long narrow ears that dry quickly, critical in short growing seasons. Save seed to replant! With each selection, this corn with its diverse ancestry will become more adapted to where you live. ❧2022 Ω ①

683 ***A**: 1oz, $5.00* ***B**: 8oz, $22.00* ***C**: 1#, $38.00*

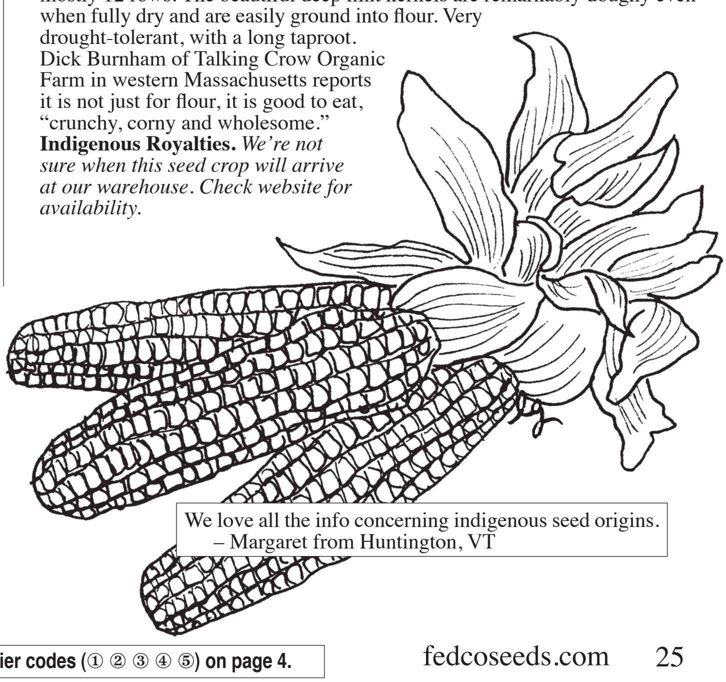
Montana Morado Maize - Organic (90 days) OP. Flour corn. *Morado* is Spanish for dark purple, and the popular South American drink *chicha morada* comes from an ancient Peruvian corn. But Andean corns are not adaptable to the North. Enter devoted corn breeder Dave Christensen, whose work for decades has been driven by a vision to create a grain with the highest antioxidant level possible. He's been mostly selecting from **680** Painted Mountain, to which he's added an Arizona Diné corn that had two layers of pigmentation (typically corn has one), which increased the antioxidants. So this Montana Morado Maize is descended entirely from North American corns. Like Painted Mountain, it matures fast in Montana's short season and stressful conditions. Grows similarly to Painted Mountain, though Morado is a little larger, with long thin cylindrical ears that are stunning as well as highly nutritious. According to Dave, "The soft flour starch is ideal for every food purpose and makes the best cornbread." ❧ 2022. Ω ①

685 ***A**: 1oz, $5.15* ***B**: 8oz, $22.25* ***C**: 1#, $36.00*
***D**: 5#, $158.00* ***E**: 10#, $300.00*

Floriani Red Flint - Organic (100 days) *Z. m.* var. *rostrato* OP. Steady appreciation from corn aficionados has now replaced the crazy demand this variety first enjoyed when we lauded it as an exceptionally beautiful variety with fabulous flavor. The red pointed kernels (white when immature) are easy to shell and grind into a fine pinkish meal that bakes with an appealing spongy texture. Floriani's richly sweet delicious corny taste beat the competition silly in our pancake and cornbread muffin bake-off. Moreover with a 12% protein content, compared to about 9% for most other varieties, it's a beneficial staple as well. Heirloom from the Valsugana Valley of Italy and brought to wider attention by William Rubel, it was once the staple polenta corn in the valley and was named for Rubel's friends who've grown it there for many years. ①

688 ***A**: 75 seeds, $4.00* ***B**: 300 seeds, $12.00*
***C**: 900 seeds, $20.00* ***D**: 4500 seeds, $50.00*

Hopi Blue - Organic (100 days) OP. Precursors of this strain have been raised continuously for 800 years on the mesas of northern Arizona and are used by the Hopis to make ceremonial piki bread. Our seed is currently being grown in upstate NY on tall 7–9' plants which produce large 8–10" ears of mostly 12 rows. The beautiful deep flint kernels are remarkably doughy even when fully dry and are easily ground into flour. Very drought-tolerant, with a long taproot. Dick Burnham of Talking Crow Organic Farm in western Massachusetts reports it is not just for flour, it is good to eat, "crunchy, corny and wholesome." **Indigenous Royalties.** *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*



> We love all the info concerning indigenous seed origins.
> – Margaret from Huntington, VT

CUCUMBERS

Cucumis sativus

- About 30 seeds/g; about 900 seeds/oz; variations noted.
- Days to maturity are from emergence after direct seeding. From transplant, subtract 20 days.

Culture: May be started indoors for early production, or direct-seeded when soil has warmed. **Minimum germination soil temperature 65˚, optimal range 60–90˚.** Very tender, will not survive frost. Direct seed 3" apart thinning to 1' apart in rows 4–6' apart, or 6 per mound in hills 4' apart thinning to 3 best plants. For transplants: once seedlings have 1–2 true leaves, about 3 weeks old, plant 1' apart in rows 4–6' apart.

Cucumbers require good fertility and regular rain or irrigation for abundant yields. Without adequate water, fruits will be misshapen and bitter. Pick frequently for best production, or else the plants shut down. Toss those blimps into the compost pile.

Parthenocarpic varieties can set fruit without being pollinated, an advantage in cold cloudy summers. **Gynoecious** varieties produce almost exclusively female flowers for uniformity and high yields.

Diseases:

ALS	Alternaria Leaf Spot	DM	Downy Mildew
ANTH	Anthracnose	PM	Powdery Mildew
BW	Bacterial Wilt	R	Rust
CMV	Cucumber Mosaic Virus	TLS	Target Leaf Spot
CVYV	Cucumber Vein Yellow Virus		

Insect Pests: To keep out the obnoxious **striped cucumber beetle**, use wire hoops and floating row covers (page 142), removing when plants flower. Cuke beetles are the vector for BW. For more info about cucurbit pest and disease control, see page 65.

PICKLERS

Ronda (50 days) F-1 hybrid. In our 2015 pickling cuke trial, Ronda caught our fancy. From three short-vined plants we harvested upwards of 130 handsome dark green gherkins over four weeks. **Gynoecious**, **parthenocarpic** and early, Ronda also sported lasting foliage health in a bad PM season. For those perfect tiny sour pickles with fine crunchy texture, we recommend picking fruits at 3" long or smaller. Not at all bitter, Ronda is sweet and buttery when raw, large or small. “The Ronda cucumber seeds were a bit pricey but they all grew and you forgive them their cost when you pick them—three times as prolific as any others we planted and most excellent flavor,” testify Nancy and Bruce Nickel of Mountain Home, AR. Intermediate resistance to CVYV, CMV, PM. Sold by seed count: ~40 seeds/g. ④

***1214 A**: 10 seeds, $6.15*

Sassy (52 days) F-1 hybrid. Although rated mid-late season by its breeder, this cuke is sassy enough to produce like crazy in the early slot. Though some picklers tease you with a handful at first picking, a mere three Sassy plants yielded more than 25 flawless very dark green 4" fruits during their first week of harvest. Vigorous long vines, dark green healthy foliage and predominately female flowers continue this bounty, barely slowing after four more harvest weeks. Uniform long narrow pickles are sweet, crisp and thin skinned. Perfect for whole dills, but versatile for any favorite pickle recipe. High resistance to scab and ANTH. Intermediate resistance to CMV, ALS, PM. ⑤ *We’re not sure when this seed crop will arrive. Check website for availability.*

National (52 days) OP. Introduced in 1929, the result of a five-year collaboration between the National Pickle Packers Association and the Michigan Agricultural Experiment Station. Suitable for both small pickles and dills. Holding quality over a long season, the firm black-spined dark green fruits are usually quite sweet, rarely bitter. Plants are vigorous dependable producers—this is our top-selling pickler. Resists CMV and scab. ②

***1226 A**: 1g, $2.50 **B**: 4g, $3.75 **C**: 16g, $4.75*
***D**: 32g, $7.25 **E**: 112g, $13.50 **K**: 448g, $36.00*

Calypso (52 days) F-1 hybrid. Heavy-yielding **gynoecious** hybrid developed by North Carolina State. Fruits medium-dark green with white spines. In a trial of seven pickling varieties at Highmoor Research Farm, Calypso showed prolific fruit set and had the highest early yield. *Note:* Contains about 15% male seed—if planting only a few, consider adding a second variety that is neither gynoecious nor parthenocarpic to ensure adequate pollination. Tolerant to ANTH, ALS, CMV, DM, PM; resistant to scab. ④

***1232 A**: 1g, $2.75*
***B**: 4g, $4.00*
***C**: 16g, $5.50*
***D**: 32g, $7.00*
***E**: 112g, $17.75*

Common Wealth - Organic (52 days) OP. Seed grower turned plant breeder Edmund Frost brings us this downy mildew–resistant cuke, bred in the Southeast where disease pressure is formidable and where two generations of a crop can be grown in a year. The results have been relatively swift and gratifying: a sweet crisp thin-skinned pickler with the requisite disease resistance and a bonus tolerance to bacterial wilt. The best performer in our pickler trials! This is Emily Pence’s favorite for eating out of hand until they reach about 6"—and as Fedco’s field trials coordinator she has eaten a lot of cukes. Vigorous vines are productive over a long season with very few misshapen or bitter-ended fruits. Your pickling crock shall overflow with the common wealth derived from seed such as this. Resistant to DM; tolerant to BM. Ω **Breeder Royalties.** ①

***1233 A**: 1g, $3.50 **B**: 4g, $6.00*

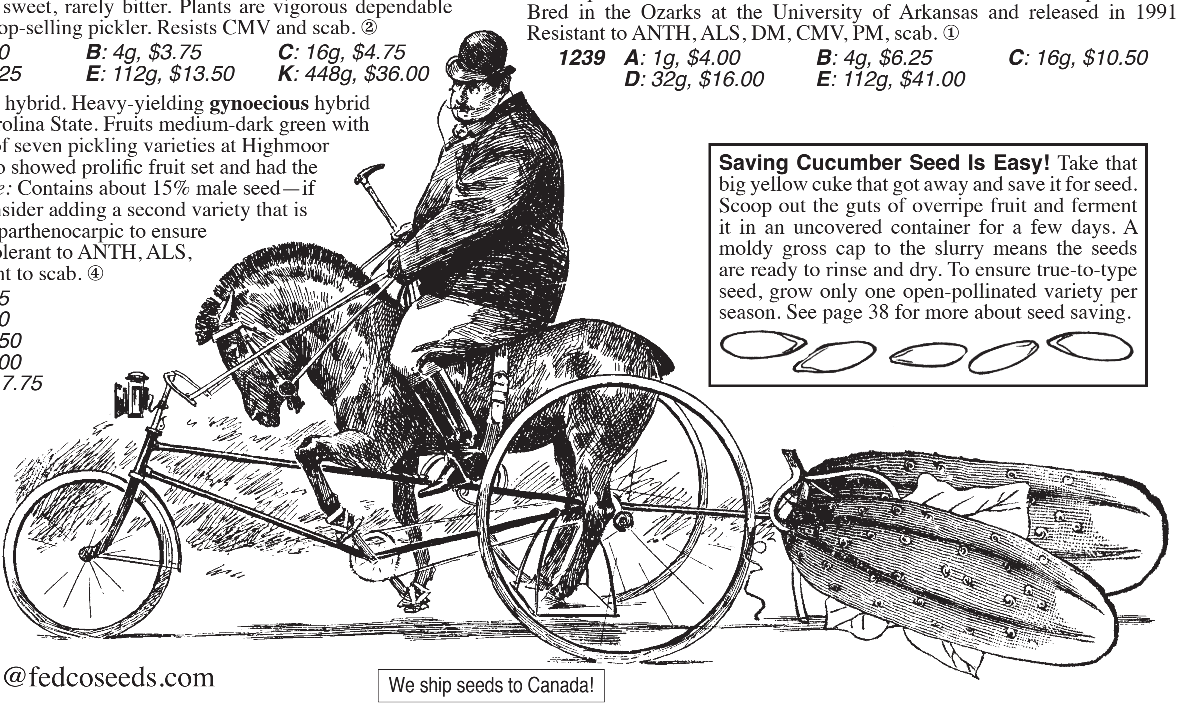
Cross Country (57 days) F-1 hybrid. Named for its widespread adaptability, Cross Country goes the distance. Bears abundant blocky straight dark green white-spined fruit of uniformly good quality with very small seed cavities. Our trialer described its sweet taste as “crunchy and cool.” Had good yields (5½ lb per plant), appearance, and long uniform fruit in Highmoor Research Farm trial. Has been highly rated in brine tests. Resistant to scab, but susceptible in our trial to BW. Resistant to ANTH, ALS, PM and DM. ⑤

***1234 A**: 1g, $2.55 **B**: 4g, $4.60 **C**: 16g, $9.15*
***D**: 32g, $15.25 **E**: 112g, $42.00*

Little Leaf H-19 - Organic (60 days) OP. This white-spined **parthenocarpic** pickler sets fruit even when our pollinator friends are challenged by the weather. Compact vines with distinct little leaves save space and leave ripe cukes much more visible. Despite the plants’ skimpy appearance, they produce a huge number of cukes, even under stress. Full-sized at 3–4", these bijou blocky fruits serve double duty for fresh snacking and pickling. Has become a big customer favorite and rated as Donna Dyrek’s top choice among the 21 picklers in her Zone 4 2015 trial. Best suited for outdoor production. Bred in the Ozarks at the University of Arkansas and released in 1991. Resistant to ANTH, ALS, DM, CMV, PM, scab. ①

***1239 A**: 1g, $4.00 **B**: 4g, $6.25 **C**: 16g, $10.50*
***D**: 32g, $16.00 **E**: 112g, $41.00*

Saving Cucumber Seed Is Easy! Take that big yellow cuke that got away and save it for seed. Scoop out the guts of overripe fruit and ferment it in an uncovered container for a few days. A moldy gross cap to the slurry means the seeds are ready to rinse and dry. To ensure true-to-type seed, grow only one open-pollinated variety per season. See page 38 for more about seed saving.



SLICERS

Lagos (45 days) *Not available in 2024. Dropped by our supplier.*

South Wind - Organic (55 days) OP. Another stand-up variety from Edmund Frost, who focused in on bacterial wilt tolerance as well as downy resistance in his selections in Virginia. Straight medium-green 7–8" cukes are spectacular: crunchy and aromatic with stem ends never getting bitter. In Maine, we found that like Frost's **1233** Common Wealth pickler, South Wind showed impressive resistance to PM, with vines still perky and vibrant when many other varieties had completely succumbed. The strong vigorous productive plants rarely produce misshapen fruits, even under stress. Resistant to PM and DM; tolerant to BW. Ω **Breeder Royalties.** ① **NEW!**

1336 ***A****: 1g, $4.00* ***B****: 4g, $6.75* ***C****: 16g, $16.00*
D*: 32g, $26.00* ***E****: 112g, $75.00* ***K****: 448g, $160.00*

Marketmore 86 - ECO (58 days) OP. An old fave, bred in 1986 by Dr. Henry Munger, who is renowned for introducing more than 50 cukes during his years at Cornell. Nearly all the disease resistance and improved color of U.S. slicing cukes are the result of his breeding program. Most of you will be familiar with **1313** Marketmore 76, which we've sold from our very first year. Marketmore 86 is earlier to set its uniform 8–9" fruits on smaller semi-bush plants that are well suited to small gardens. Fruits stay uniformly dark green, even under weather stress. Many prefer the taste of "86"—also good for pickling. Resistant to CMV, DM, PM, and scab. ① **BACK!**

1340 ***A****: 1g, $3.15* ***B****: 4g, $5.75* ***C****: 16g, $11.50*
D*: 32g, $18.00* ***E****: 112g, $40.00* ***K****: 448g, $120.00*

Marketmore 76 (63 days) OP. Dr. Munger's classic cuke for the ages, long the leading slicing variety in the Northeast. We still sell more than 4,000 packets per year, making it our top-selling cuke! Dark green 8–8½" fruits show good uniformity. Vines vigorous throughout season. Resistant to CMV, DM, PM, and scab.

Marketmore 76 ②⑤

1312 ***A****: 1g, $2.15* ***B****: 4g, $2.85* ***C****: 16g, $4.85*
D*: 32g, $6.25* ***E****: 112g, $13.50* ***K****: 448g, $35.00*

Marketmore 76 - Organic ①③

1313 ***A****: 1g, $2.95* ***B****: 4g, $3.75*
C*: 16g, $8.50* ***D****: 32g, $13.50*
E*: 112g, $32.50* ***K****: 448g, $110.00*

Our family loves Fedco Seeds. I love all your initiatives and transparency and usually end up getting teary eyed at something I read in the catalog.
– Jill from Tewksbury, MA

Generally Cuke (66 days) F-1 hybrid. We had intended to drop General Lee because of the name, but this esteemed cuke received a reprieve when the supplier gave us permission rename it! A favorite of many, this **gynoecious** cuke holds its place in our catalog as the best choice for overcoming stress and diseases and for performing well in cold summers, with high yields of uniform straight dark-green white-spined 8–8½" slicers that don't peter out in the halcyon days of summer. Retains both color and good flavor even in heat. *Note:* Contains about 15% male seed—if planting only a few, consider adding a second variety that is neither gynoecious nor parthenocarpic to ensure adequate pollination. Resistant to scab, CMV, PM and DM. ⑤

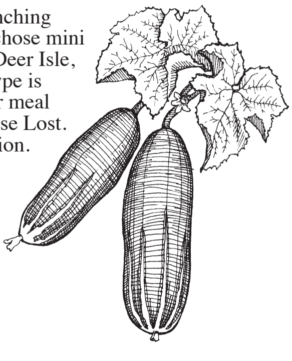
1328 ***A****: 1g, $3.65* ***B****: 4g, $5.75* ***C****: 16g, $14.25*
D*: 32g, $23.00* ***E****: 112g, $70.00*

Longfellow (70 days) OP. Bred and released in 1927 by Jerome B. Rice Seed Co, Cambridge, NY. Stubborn Ox Farm of Brooks, ME, hosted Fedco's 2018 extensive slicing cuke trials with hybrid and OP types locking horns. Winning easily was white-spined classic Longfellow—fitting, as Maine whelped and educated the famous author. Extra-good Fellow came into picking mid-late season, but we found the 8–9" long and 2" wide stage to be eating perfection: skin crunchy but not tough, sweet and full cuke flavor, flesh crisp but then immediately juicy and melting, with a small seed core. Steady vigor and yield with few duds. Light green and striped blossom end. Originally prized as a "straight pack" for high-grade markets across the Northeast, Longfellow or its close derivatives have been used by innumerable breeders to impart ideal length, dark green color and excellent flavor. ②

1335 ***A****: 1g, $2.95* ***B****: 4g, $5.95* ***C****: 16g, $11.50*
D*: 32g, $18.00* ***E****: 112g, $39.00*

BEIT ALPHA CUKES

This small sweet-fleshed type of cucumber has been grown for centuries by Arabic, Persian and other communities in the dry climate of the Middle East. The Beit Alpha kibbutz selected and marketed the fruit under that name. The cucumbers don't dehydrate easily, their thin skins don't require peeling, they are almost completely burpless and have a long shelf life.



Mandy (45 days) F-1 hybrid. For sheer munching crunching refreshing joy, trialer Anna Goff chose mini Mandy from 2 years of yummy research in Deer Isle, ME. This small Middle Eastern or Persian type is best when picked at 3–5". A midday summer meal without these cooling cukes is indeed Paradise Lost. For outdoor and shaded high-tunnel production. While the coastal climes of Maine are cool enough for high-quality outdoor summer harvests, folks in hotter areas will want to plant for a fall harvest. Consistent moisture is also key to perfect fruit. ④

1378 ***A****: 10 seeds, $6.15*
B*: 30 seeds, $13.25*
C*: 60 seeds, $21.00*
D*: 300 seeds, $80.00*

Socrates - Organic (52 days) F-1 hybrid. Fedco website virtuoso Clayton Carter makes this trellis cuke his top choice for protected culture. Trained to a manageable 6' height, Socrates lacks for nothing in vigor or foliage health. The strong thick stems steadily set straight 7–8" fruit. Smooth thin dark green skin gives way to crunchy sweet seedless pale green flesh. With its tolerance of cool temps and its disease-resistance, Socrates makes a "most excellent" variety to return your high-tunnel investment. **Parthenocarpic.** *Note*: Seeds will result if insect pollination is allowed. Resistant to scab. Intermediate resistance to PM. ④

1380 ***A****: 10 seeds, $10.25* ***B****: 30 seeds, $24.75*
C*: 60 seeds, $38.50* ***D****: 300 seeds, $150.00*

Super Zagross - Organic (54 days) *Not available in 2024. Accidentally crossed with Lemon cucumber.*

LONG-FRUITED CUKES

Long-fruited Asian cukes are more resistant to CMV than other types.

For really straight cukes, consider trellising. Adam Tomash and June Zellers grew theirs on a 5' arch made from cattle panel, a welded wire material with big holes.

Telegraph Improved European (60 days) OP. “A consistent performer in our greenhouse,” said Michael Goldman of Florence, MA. Also suitable for growing outdoors, this European cucumber has long (10–14") slim smooth-skinned fruits of very delicate mild flavor, seldom bitter and containing few seeds. Telegraph Improved was selected from Telegraph Long, one of the original parthenocarpics, which the folks at Baker Creek date back to 1897. Trellis vines for better-quality straight cukes. **Parthenocarpic.** ③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Suhyo Long - Organic (61 days) OP. Known for its sweet mild burpless flavor, this Asian cucumber grows up to 15" long with a curly shape if unsupported. For straighter fruit that packs better, Jason Kafka grows these in his greenhouse in vertical hedges, stretching Trellis Netting (page 142) between conduits. According to Tom Vigue these make good dense pickling cukes if picked young enough. Jonathan Mitschele of Maine agrees: “Suhyo is wonderful both fresh and pickled.” Sets well in heat. Resists PM. ①③

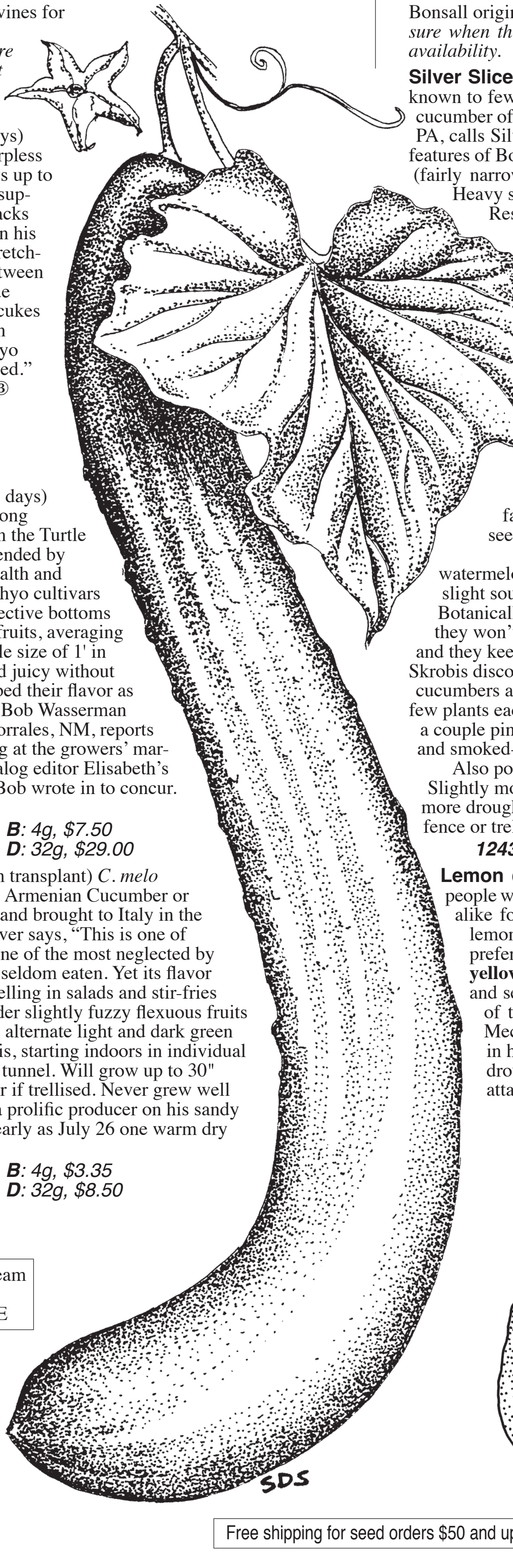
1394 ***A**: 1g, $4.00*
***B**: 4g, $6.00*
***C**: 16g, $11.00*
***D**: 32g, $20.00*

Shintokiwa - Organic/BD (62 days) OP. Productive smooth-skinned long slender cucumber first surfaced in the Turtle Tree catalog and highly recommended by our trialers. Combining looks, health and flavor, rated as superior to the Suhyo cultivars with better uniformity, fewer defective bottoms and more resistance to BW. The fruits, averaging 9–10" and growing up to an edible size of 1' in good fertility, are sweet, crisp and juicy without bitterness. One trial taster described their flavor as “flowery, buttery and delicious.” Bob Wasserman of Wasserman Family Farm in Corrales, NM, reports that they have a faithful following at the growers' market—even among little kids. Catalog editor Elisabeth's favorite for fermented pickles—Bob wrote in to concur. Appreciates a trellis. ①

1396 ***A**: 1g, $3.50* ***B**: 4g, $7.50*
***C**: 16g, $18.00* ***D**: 32g, $29.00*

Painted Serpent (55 days from transplant) *C. melo* var. *flexuosus* OP. Also known as Armenian Cucumber or Snake Melon, native to Armenia and brought to Italy in the 15th century. William Woys Weaver says, “This is one of the oldest of our heirlooms, yet one of the most neglected by our gardeners,” oft exhibited but seldom eaten. Yet its flavor surpasses that of cucumbers, excelling in salads and stir-fries without bitterness or burps. Slender slightly fuzzy flexuous fruits delicately coil like a serpent with alternate light and dark green stripes. Culture like the melon it is, starting indoors in individual pots and transplanting into a low tunnel. Will grow up to 30" but best eaten at 8–18". Straighter if trellised. Never grew well on CR's central Maine clay, but a prolific producer on his sandy Colrain, MA, soil, beginning as early as July 26 one warm dry season. About 24 seeds/g. ③

1388 ***A**: 1g, $2.60* ***B**: 4g, $3.35*
***C**: 16g, $5.35* ***D**: 32g, $8.50*
***E**: 112g, $17.00*



Thank you for helping me to dream
and scheme all winter long!!!
– Heather from Durham, ME

SPECIALTY CUKES

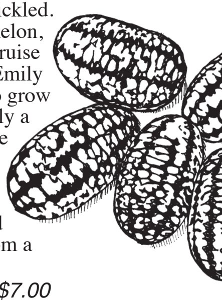
Boothby's Blonde - Organic (63 days) OP. Maine boasts an heirloom cucumber, maintained for five generations by the Boothby family of Livermore. Boothby's short plump oval fruits average 3–4" and become yellower as they mature. **Creamy-white** exteriors with contrasting black spines and juicy refreshing interiors. Larger seed cavities than most cukes, but the seeds actually add to the mild sweet flavor that makes the fruits so good for eating out of hand. Boothby's usually lacks the bitter aftertaste so common in many of the other white cukes we've trialed. Has the “cool” texture uncommon in American cukes. Boothby's goodwill ambassador Will Bonsall originally passed it on both to Pinetree Seeds and to us. ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Silver Slicer - Organic (64 days) OP. Psst! We'd love to pass on a secret known to few: this superior Cornell University slicer may be the best eating cucumber of them all. Megan Rulli of Piney Mountain Orchard in Gardners, PA, calls Silver “the cucumber of my dreams.” Incorporates all of the good features of Boothby's Blonde in a better package. Longer (7–8") and slimmer (fairly narrow 1" core) than Boothby's with a **creamy-white** tender skin. Heavy set of buttery crunchy crisp fruits, neither watery nor ever bitter. Resists PM and keeps going till September. Seed for this variety is sold under a license and a portion of the proceeds goes to support public vegetable breeding at Cornell. ~51 seeds/g. **Breeder Royalties.** ①③

1318 ***A**: 1g, $3.00* ***B**: 4g, $6.00*
***C**: 16g, $12.15* ***D**: 32g, $19.25*
***E**: 112g, $47.00*

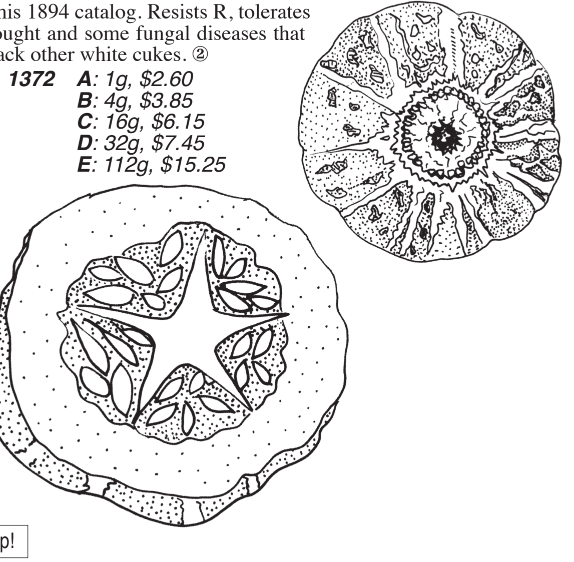
Mexican Sour Gherkin (65 days) *Melothria scabra* OP. Also known as Cucamelon or *Sandía de ratón* (‘Mouse Watermelon’ in Spanish). Easy to grow, and fun! Native to Mexico and Central America and a staple in diets there since pre-Columbian times. When we saw these darlings on exhibit at Common Ground Fair in 2004, we found them irresistible. The great late Janet Winslow calls them a “gateway” crop, meaning they inspire fairgoers to explore the diversity of available food crops. Wimpy seedlings grow into rampant yet delicate scrambling vines covered with dozens of 1" green and white fruit that look like miniature watermelons but taste more like cucumbers, with a crunchy texture and a slight sour zing as if they were already pickled. Botanically neither cucumber nor watermelon, they won't cross with either. They don't bruise and they keep for a long time. After staffer Emily Skrobis discovered these, she vowed never to grow cucumbers again: “SO snackable! I grow only a few plants each year but have enough to make a couple pints each of curry-kins, dilly-kins and smoked-paprikins refrigerator pickles.” Also popular among trendy bartenders. Slightly more cold-tolerant than cukes, and more drought-resistant. 10' vines benefit from a fence or trellis. ~350 seeds/g. ②

1243 ***A**: 0.2g, $3.00* ***B**: 1g, $7.00*



Lemon (68 days) OP. Would you buy a lemon from Fedco? A lot of people will buy this lemon beloved by salad chefs and backyard gardeners alike for its heavy yields of rounded 3" fruits shaped somewhat like lemons. Color evolves from pale greenish yellow (immature though preferred by some customers as most tender and least seedy) to **lemon yellow** (best eating stage for most) to golden yellow (full maturity and seed production).Very crisp and sweet; never gets bitter and one of the best for eating right out of the garden. Samuel Wilson of Mechanicsville, PA, introduced this lemon in his 1894 catalog. Resists R, tolerates drought and some fungal diseases that attack other white cukes. ②

1372 ***A**: 1g, $2.60*
***B**: 4g, $3.85*
***C**: 16g, $6.15*
***D**: 32g, $7.45*
***E**: 112g, $15.25*



Free shipping for seed orders $50 and up!

EGGPLANT

Solanum melongena

- 0.2 gram packet is about 33-43 seeds.
- Days to maturity are from date of transplanting.

Culture: Growing eggplant can be a challenge in the north. Start indoors in early spring. **Minimum germination temp is 60˚, optimal range 75–90˚.** Transplant after all danger of frost. They resent wind, will not set fruit in cold or very hot temps or in drought. We recommend irrigation and using row covers (page 142) and IRT mulch (page 141). Our selections are the most reliable producers we've found, yet some seasons even our skilled trialers get only sparse production of ripe fruits.

Pest: Colorado Potato Beetle (CPB) **Cultural controls:** Rotation; control solanaceous weeds like horse nettle; suction devices; hand-picking if beetle pressure is low; use row cover, mulch before adults arrive. **Material controls**: Surround (page 146), Spinosad and Pyrethrin (page 147) For more about CPB, see page 123.

Swallow (51 days) *Dropped by our supplier.*

Pingtung Long (58 days) *Check website for availability.*

Corsica (60 days) *Not available in 2024.*

Galine (72 days) F-1 hybrid. A classic early bell-shaped Italian-style **purple-black** eggplant that sets fruit and produces early and dependably in the North. June Zellers and the late Adam Tomash rated it the earliest in their trials, and almost on a par with **3691** Rosa Bianca, their favorite, for flavor. "Mild with a pudding-like texture when cooked," they reported. Plus it had larger fruit, averaging about 1 lb each, and was less fussy than Rosa. Trialer Tom Vigue used a high tunnel and reported "phenomenal" eggplants. Galine plants were "4' high and, not exaggerating, 5 lb yield per plant, easily." ⑤

3677 ***A**: 10 seeds, $4.25* ***B**: 50 seeds, $6.75*
***C**: 200 seeds, $11.95* ***D**: 800 seeds, $36.00*

Gaudi (75 days) F-1 hybrid. An eggplant *sui generis* as the architectural work of its Catalan namesake Antoni Gaudí. **Dark purple** 7–8" tapered half-long bell-shaped fruit with a thornless light green calyx. Early and productive in two very different Maine trial seasons—the first, a cool *meh* of a year, then 2020 with its heat and drought. Lovely harvests both years, with fruits holding deep full color into advanced maturity. Adorable and delish at 4–5" baby size—gardener Dan Gindes in coastal Massachusetts harvested bountiful small fruits until the first week of November! The breeder notes that under stress thorns may form, but even in years with sub-optimal conditions we've waded through the eggplant patch without a single baba gan-*ouch*! Our trials were in the field, but it's also recommended for high tunnels—let us know your results if you give it a try. ②

3681 ***A**: 0.2g, $4.95* ***B**: 0.4g, $7.95* ***C**: 1g, $14.00*
***D**: 4g, $40.00* ***E**: 16g, $145.00*

Jessy (78 days) F-1 hybrid. Rounded 3½–5" **black** fruits with slight lobing and ribbing and delicate lavender-cream tracing around the deep purple sepals are up there with **3691** Rosa Bianca for eggplant elegance. The exquisite color detailing and sweet meaty *solanum* satisfaction will enhance your culinaria. Midnight-toned short-statured plants bear medium yields. Bred to blend the countenance of the Italian Prospero type with that of the Kyoto Kamo. ④

3683 ***A**: 10 seeds, $7.25* ***B**: 50 seeds, $25.00*
***C**: 200 seeds, $53.00*

Diamond - Organic (78 days) OP. Kent Whealy brought this elongated slightly tapered **dark purple** eggplant back from Ukraine in 1993. 2' plants set 2½ x7" slender 12 oz fruits in clusters. Firm flesh has good texture and entirely lacks bitterness. Because of its mild flavor and good cold-climate adaptation, Diamond is growing in popularity. Our trialer in Maine had an average yield of 4 lb per plant. ①

3684 ***A**: 0.2g, $3.25* ***B**: 0.4g, $4.50* ***C**: 1g, $6.50*
***D**: 4g, $12.00* ***E**: 16g, $45.00*

Black King (79 days) F-1 hybrid. A fine eggplant from Takii in Japan, good for the main crop. A vigorous grower and high yielder suitable for both greenhouse and open-field cultivation. Shiny **purple-black** bulging 7" oval fruits outperformed Diamond in Tomash and Zellers' trial. Their two King plants produced 11 ripe fruit averaging 0.9 lb. Tolerates excess heat. ⑤

3685 ***A**: 0.2g, $3.65* ***B**: 0.4g, $5.00* ***C**: 1g, $6.60*
***D**: 4g, $17.75* ***E**: 16g, $63.00*

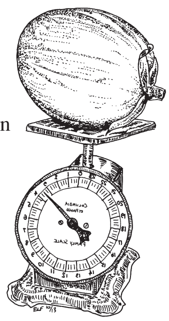
EGGPLANTS of Other Colors

Annina - Organic (64 days in unheated tunnel, 72 days open field) F-1 hybrid. Annina's slightly curved extended-teardrop shape is covered with **purple and lavender streaks with emanations of ivory and light pink**. From the ½ lb, 5" baby size to the 1½ lb, 8" premiums, the glossy gorgeous skin and cream-white flesh are irresistible. Keeps well at room temp. We found the open field trial productivity on par with high-bar setters Galine and Diamond, a welcome surprise from a dual-purpose inside-outside variety. Outperformed Galine and Swallow for Emily Skrobis in 2021. "They keep going and going," she raves. The healthy upright structure and thornless light green calyx add to this showcase of thoughtful breeding: rugged and bountiful for organic growing, picker-friendly, nice "half-long" single-serving size, and so stunning you just have to show everyone. ④

3679 ***A**: 10 seeds, $7.95* ***B**: 50 seeds, $25.00*
***C**: 200 seeds, $61.00*

Rosita - Organic (84 days) OP. Rosita is productive and tasty without a hint of bitterness. These pear-shaped **pink-lavender** fruits with white shoulders are 6–8" long and 4–6" wide and will stand up in any Solanum beauty contest. Heirloom Rosita, brought to the mainland from Puerto Rico in 1979, has gained a steady following. Enjoy its sweet delicious tender white flesh. ①②

3688 ***A**: 0.2g, $3.50* ***B**: 0.4g, $5.50* ***C**: 1g, $8.25*
***D**: 4g, $19.50* ***E**: 28g, $77.00*



Rosa Bianca - Organic (88 days) OP bicolor Italian heirloom. Alan LePage called it "the best eggplant in the universe," with a creamy consistency and delicate flavor. "Head and shoulders above the rest," added Tomash, "like eggplant pudding." "A plump beauty that likes the Michigan climate," chimed in Anne Elder. Gorgeous rounded fruits, **white with lavender streaking** down the side, about 3–4" across and 5" long, narrow at the top and widening with indentations almost like folds in draped fabric. Fruits average 2 lb, max out at 4 lb, LePage's highest-yielding eggplant. Rosa needs to be coddled, particularly in the northern half of New England. Seed needs alternating temperatures to break dormancy: warm days (preferably 80s), cooler nights (around 70˚). ①③

3691 ***A**: 0.2g, $2.95* ***B**: 0.4g, $4.25* ***C**: 1g, $6.95*
***D**: 4g, $12.00* ***E**: 28g, $44.00*

Endive: see Greens, page 34.

FENNEL

Foeniculum vulgare

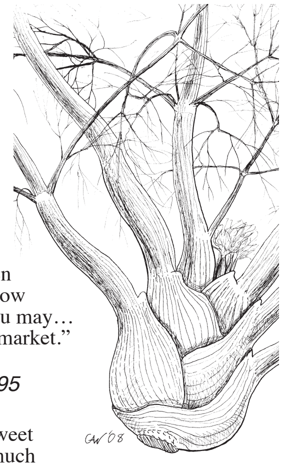
- Days to maturity are from seedling emergence.

Culture: Start indoors in early spring, transplant May-June. For fall bulbs, start late spring. **Minimum germination temp 40˚, optimal range 60-70˚.** Hardy to under 20˚. Adequate spacing to 8-12" apart is critical. Fennel prefers rich well-drained slightly limey soil. Maintain consistent soil moisture for best bulbs.

Seed Fennel appears with Herbs on page 88.

Bronze - Organic (65 days) OP. Slow grower with very thin stems valued for its striking feathery bronze foliage. Delicious and decorative. An intriguing addition to mesclun and to flower beds. About 375 seeds/g. ①

4567 ***A**: 0.2g, $3.00* ***B**: 0.6g, $4.50*
***C**: 3g, $8.00* ***D**: 15g, $15.00*



Perfection - Organic (72 days) OP. The acme of Perfection in bulbing fennel, and a good performer in cool soils. Has shown up well in repeated trials, even in warm seasons. Nearly as bolt proof as those pricey hybrids seven times the cost. 5–7 days longer-standing than Zefa, with much thicker bulbs. Best raw fennel flavor in our 2021 trials. Our thanks to Eric Schori of Gnarlwood Farm in Lempster, NH, who suggested Perfection. "I've seen Perfection large enough to be used to subdue an ornery moose…. Makes a superb bulbing fennel even at more modest sizes. Sauté with onions, yellow peppers and a little toasted sesame oil and you may… keep it all for yourself instead of taking it to market." About 290 seeds/g. ①

4553 ***A**: 0.5g, $3.50* ***B**: 3g, $7.95*
***C**: 9g, $16.25*

Dragon - Organic (90 days) F-1 hybrid. Sweet and mild, these 3–4" bright white bulbs are much more like a Falkor than a Smaug. Unfazed by the challenging heat of summer and resists bolting. Gently sautéed, the delicate flavor will win over even fennel skeptics. Although not quite The NeverEnding Story, you can begin harvesting around 60 days for tender baby stalks, and with successive planting you'll enjoy Dragon through the season. ④ **NEW!**

4554 ***A**: 25 seeds, $3.45* ***B**: 100 seeds, $6.50*
***C**: 500 seeds, $21.00* ***D**: 2,500 seeds, $80.00*

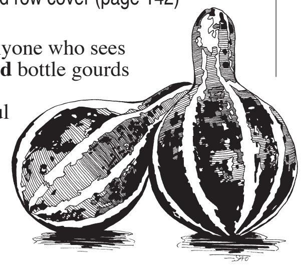
GOURDS

Gourds come in two major categories (Luffa is a third). The small ones are *Cucurbita pepo* var. *ovifera*, known as ornamental gourds for their variety of shapes, colors and surfaces. The larger ones are *Lagenaria siceraria* or hardshell gourds, named from the Greek *lagenos*, 'a flask,' and *sicera*, 'an intoxicating drink.' *Lagenaria* lack the color range of their smaller cousins, but fascinate with their magical shapes. Because of their hard shells they are the type most commonly used for crafts, musical instruments and utensils.

SMALL GOURDS *Cucurbita pepo* var. *ovifera*

About 500 seeds/oz. Days to maturity are from emergence after direct sowing. These vigorous viners will usually mature their ornamental fruits in our climate if direct-seeded after danger of frost. Use wire hoops and row cover (page 142) to keep out cucumber beetles.

Tennessee Dancing Gourd (93 days) OP. Anyone who sees these tiny 2–3" adorable **green-and-white striped** bottle gourds falls in love with them. Junior Gordon of Primm Springs, TN, the original source for this delightful conversation piece, says these are better known as spinning gourds and advises us to select our seed crops for short, fairly thick straight necks and to rogue out those with the longer crooked necks that won't spin as well. To spin them "take the neck between your middle finger and thumb and snap your fingers with a quick action." Kids in Tennessee used to bring them to school as toys. Staffer Sarah Oliver has developed no small skill in transforming these into charming decorated containers to showcase and store small objects. Fedco board member David Shipman is a whiz at spinning them. Rampant vines are extremely prolific producers of the small fruits. Hard shells dry to tan color. ②



1908 ***A**: 1/8oz, $4.00* ***B**: 1/4oz, $5.50* ***C**: 1/2oz, $8.50*
***D**: 1oz, $14.25* ***E**: 4oz, $45.00*

Small Ornamental Blend (95 days) OP. Eight kinds of early-maturing types, with small spoon, bicolored pear, and small orange most prevalent. ③

1912 ***A**: 1/8oz, $3.25* ***B**: 1/4oz, $5.25* ***C**: 1/2oz, $8.00*
***D**: 1oz, $12.00* ***E**: 4oz, $29.00*

Fancy Warted Blend (95 days) OP. We've jazzed up our usual warted mix with an equally fine but slightly different assortment of flats, rounds, short pears, pears and spoons in a variety of solid, striped and bicolor patterns. **Yellows, greens, oranges and whites** make a bright display. We love them, warts and all. ③

1939 ***A**: 1/8oz, $3.35* ***B**: 1/4oz, $5.15* ***C**: 1/2oz, $8.50*
***D**: 1oz, $13.50* ***E**: 4oz, $43.00*

Autumn Wings (100 days) OP. These are to gourds as the 1957 Cadillac was to cars. They have a double set of fins or wings. Both the gourd and the car are highly conspicuous. Autumn Wings' colors, a vivid mix of **greens, yellows, creams and whites**, make them even more so. Some of these gourds are straight necked and others are curved. They vary in size, too, one third small, one third medium and the remainder in the large 6–8" range. We stop short of claiming them to be the Cadillac of gourds, but bet they'll make a good roadside stand attraction. ②

1957 ***A**: 20 seeds, $4.00* ***B**: 60 seeds, $7.00*
***C**: 120 seeds, $11.00* ***D**: 240 seeds, $20.00*
***E**: 500 seeds, $38.00*

Optimist: dreaming of gardening with the windchill at –18° in the middle of a blizzard.
– David from Bovey, MN

LUFFA or LOOFAH *Luffa aegyptiaca*

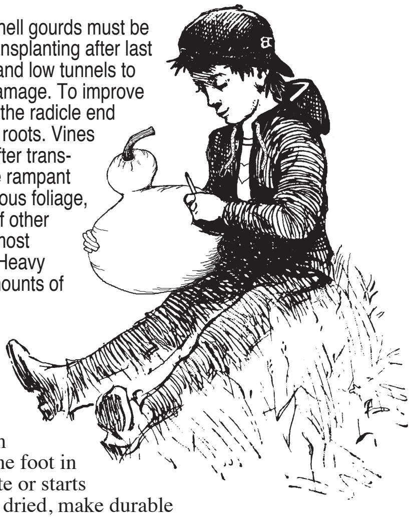
About 280 seeds/oz. Days to maturity are from transplant.
Culture: Very long season: Luffa must be started indoors 4 weeks before transplanting after last frost. Use row covers (page 142) and low tunnels to help maturity and reduce insect damage. Trellis if you want your luffas to be straight.

Luffa (110 days) OP. May be more closely related to the cucumber than to the hardshell *Lagenaria*. Also known as Dishrag Gourd, dried and used for making bath sponges. Some folks pick them young, steam and pan-fry them. In addition to being a scrubber and a comestible, this versatile gourd has been used to make soundproof wall boarding, to insulate army helmets, to stuff mattresses and saddles and even to make filters for steam engines and diesel motors! Check our website for sponge-making instructions. ②

1962 ***A**: 1/8oz, $3.50* ***B**: 1/4oz, $5.50* ***C**: 1/2oz, $8.50*
***D**: 1oz, $12.00* ***E**: 4oz, $27.00*

LARGE GOURDS *Lagenaria siceraria*

About 100–140 seeds/oz. Days to maturity are from transplant. Originated in tropical Africa.



Culture: Very long season: hardshell gourds must be started indoors 4 weeks before transplanting after last frost. Use row covers (page 142) and low tunnels to help maturity and reduce insect damage. To improve germination, sandpaper or clip off the radicle end and soak seed. Do not disturb the roots. Vines will grow slowly for a few weeks after transplanting. Once they take off, these rampant crawlers are noted for their enormous foliage, more velvety in texture than that of other cucurbits, and their large white almost luminous night-blooming flowers. Heavy feeders, they will take up huge amounts of garden space unless trellised.

Large Bottle or **Birdhouse** (120 days) OP. Rampant crawling vines produce large gourds with bulbous base and narrow neck, usually with a bulge at the stem end. Grow 14" tall and up to one foot in diameter. Green rind turns white or starts to brown upon maturity. When dried, make durable bottles or birdhouses. **Black Benefit Sharing.** ②

1966 ***A**: 1/8oz, $3.25* ***B**: 1/4oz, $5.00* ***C**: 1/2oz, $7.50*
***D**: 1oz, $12.00* ***E**: 4oz, $27.00*

Speckled Swan (120 days) OP. Every year fairgoers gawk at these show-stealers, whether in Jack Kertesz' demonstration gardens or at our booth or in the Hall, admiring Swan's beautiful dark green surface with very pale green 1" splotches. Large round 8–10" base tapers into graceful long neck, sometimes straight, sometimes arched, capped by a small bulb near the stem that looks like a swan's head. The color becomes tan once the gourd is fully dried. Nikos has transformed one into a hunter's harp, swan head and all. **Black Benefit Sharing.** ②

1968 ***A**: 1/8oz, $3.25* ***B**: 1/4oz, $4.75*
***C**: 1/2oz, $7.50* ***D**: 1oz, $13.00*

Bushel (135 days) OP. Shaped like a large bowl with a pot lid on it. Can grow enormous given sufficient heat, but in Maine will probably max out at 18" across. *Caution: requires a long season to mature*. To improve your chances, limit each vine to one fruit. Prune to halt vine growth after it sets first fruit. **Black Benefit Sharing.** ③ *Supply uncertain as we go to press—please check website for availability.*

Curing Lagenaria Gourds is Easy

Hardshell gourds are 90% water at harvest. They need to be cured or dried, a slow process of evaporation through the outer shell, which is covered by a thin ivory-green skin. Curing can take 6 weeks to 1 year (average time 4 months) depending on gourd size, thickness of shell, weather and storage conditions.

Immature gourds (that have not developed a thick shell) will rot after harvest. Mature gourds are large and weighty. To cure, store off the ground in a well-ventilated room or unheated outbuilding. For a smooth beige surface, scrape off the outer skin after it loosens and darkens. (Freezing and thawing loosens the outer skin.) Outer skin, if left on, may become moldy; mold-patterned skin will dry to the gourd shell and can be sanded off, painted over or incorporated into the decoration.

We ship seeds to Canada!

GRAINS

Most of the selections here are rare heirloom varieties, especially chosen for small-scale production. Revived interest in food security and sovereignty inspires us to seek edible and heirloom grains.

For more barley, oats, wheat, and cover crops check out our Farm Seed section beginning on page 126. **For ornamental grains:** amaranth, page 94; millet, page 102; sorghum or broom corn, page 106; wheat, page 109.

BARLEY

Burbank Hulless Barley - ECO *Hordeum vulgare* OP. An historic 6-rowed barley selected by Luther Burbank from California hulless barley. In his final seed catalog he called it "one of [his] greatest grain creations." Will Bonsall recommended it for its tall heavy stalks that allow it to stay erect without lodging. Golden plump grains with a rich nutty flavor and 14% protein content. Has awns. About 31 seeds/g. ①

4303 ***A****: 7g, $4.00* ***B****: 28g, $10.00* ***C****: 112g, $21.00*

OATS

Terra Hulless Oats - Organic *Avena nuda* (100 days) OP. Will Bonsall calls this the best of the naked oats, the one to grow to eat. It is probably the earliest as well as the highest yielding with the largest seed. This high-protein grain with pleasing flavor is easier to thresh than most other oats, though it still has a small hull that must be removed. A good variety to re-introduce growing grain on home ground. About 35 seeds/g. ①

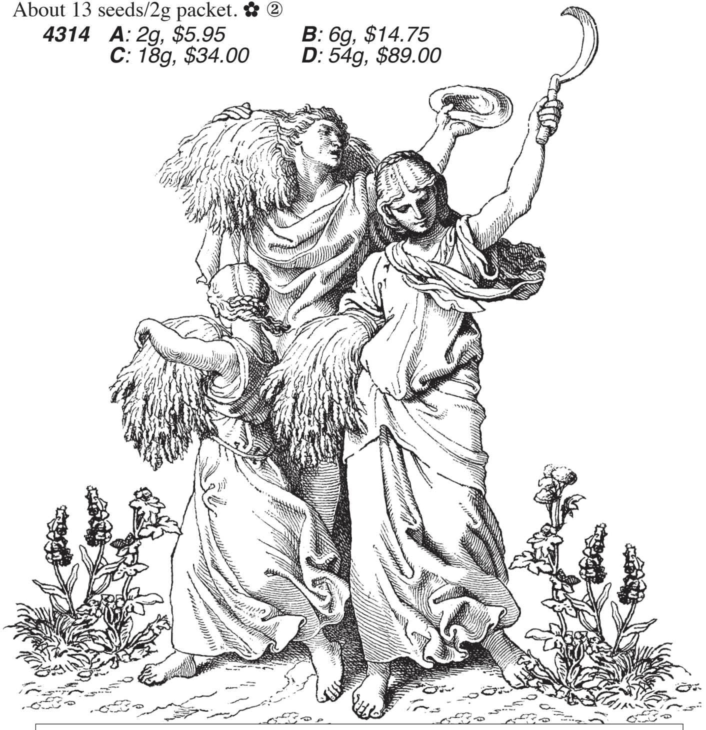
4309 ***A****: 7g, $3.50* ***B****: 28g, $8.50* ***C****: 112g, $24.00*

MESO-AMERICAN "GRAINS"

Opopeo Amaranth - Organic *Amaranthus hybridus* (125 days to seed) *Not available in 2024.*

Tarwi *Lupinus mutabilis* (130 days, longer to seed) OP. We thank Gary Kaszas of Fort Fairfield, ME, for providing us with the impetus to offer Tarwi, one of the "lost" crops of the Incas. Years ago he sent us seeds he had accessed from the USDA seed bank for this wild-looking 3' lupine native to the high Andes. In our trials, we were first attracted to its highly scented flowers of mountain-sky blue, lilac and yellow, with yellow and white keels. More than just a beautiful ornamental, Tarwi is potentially an important food crop. With a full range of essential amino acids and more than 40% protein, its luminous pearly-white bean-like seeds (2–6 per pod) surpass soybeans nutritionally. They require a long season to mature, and must be soaked and rinsed repeatedly to leach out their bitter alkaloids to make a palatable food, somewhat akin to barley in texture and taste. Start the seed indoors—the young plants are frost sensitive. Even if you lack the climate to grow the plants to seed, all is not lost. These leguminous beauties grow in poor soil, fixing nitrogen and attracting beneficial insects with honey-scented flowers. About 13 seeds/2g packet. ✿ ②

4314 ***A****: 2g, $5.95* ***B****: 6g, $14.75*
C*: 18g, $34.00* ***D****: 54g, $89.00*



Seed Farmers Resilience Fund

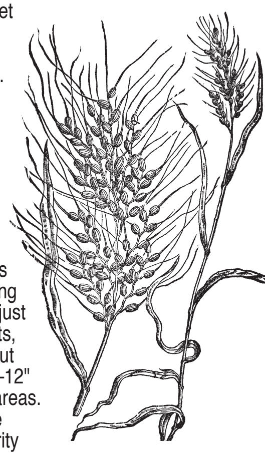
We've set up a fund to help our seed farmers who are facing crop and livelihood losses due to climate disruption. This fund will allow us to provide tangible aid as the need arises, which will help sustain the symbiotic relationship between our co-op and our network of seed growers. You can contribute when you place your Fedco Seeds order.

RICE *Oryza sativa*

About 30 seeds/g.

- Days to maturity are from transplant. Add 20 days for direct seeding.

Grow rice in the Northeast! All our rices were grown in central Maine, Zone 5a/4b.



Lowland varieties are traditionally grown in wet clay paddies or riparian areas, although flooding is not necessary. They are typically shorter and produce more tillers than upland rice, 30–50 per plant.

Upland varieties grow in drier conditions, but also do well in flooded clay paddies. Upland rice is taller and has fewer tillers than lowland. Each tiller is thicker and will produce more seeds, 12–24 tillers per plant.

Culture: For both types, a rotation of saturated and very short (a few days) dry periods is ideal from late May to June. After that, cycling water patterns is less important but helpful. Keep paddies flooded (but not stagnant) if you can. Dryness during the second half of summer shouldn't affect yields, just maturation time and weed pressure. For transplants, start at 70–85° indoors 4–5 weeks before setting out into rich moist warm soil (early June in Maine), 10–12" apart in full sun. May be direct seeded in warmer areas. Heads the first week of August and finishes by late September. In dry places, add 1–2 weeks to maturity dates. It's possible to harvest 6–10 lb from a 100' row.

Japanese varieties are the easiest for post-harvest processing.

Duborskian - ECO (115 days) OP. Seedswoman Roberta Bailey got this **upland** short-grain hardy Russian variety from Seed Savers Exchange member Anpetu Oihankesni of Colorado. Well adapted to dry-land production, sturdy plants resist lodging and shattering, grow to 20–24" producing 12–18 tillers per plant, each bearing a rice panicle. Can withstand a light frost. May be direct seeded in warmer regions. ①

4312 ***A****: 1g, $3.00* ***B****: 4g, $4.50*
C*: 28g, $12.00* ***D****: 112g, $32.00*

Kanto Wase - ECO (115 days) OP. A **upland** variety from Japan. We picked up this short-grained brown rice based on our seed grower's glowing endorsement. Much easier to hull and process with human-powered equipment than Titanio Rose and Duborskian, and we think it taste better. Strong plants resist lodging. Does not require flooding but will grow in saturated soils. ① **NEW!**

4308 ***A****: 1g, $2.95* ***B****: 4g, $4.50*
C*: 28g, $12.50* ***D****: 112g, $32.00*

Yukimochi - ECO (120 days) OP. A landrace **lowland** variety from northern Japan, *Yukimochi* is a pearly white short-grain sweet-sticky rice—think mochi! The cooked grain fries well and is great for leftovers. Grows best in well-saturated soil. Doesn't require flooding or paddies, but they help. In Zone 5b it can be grown from direct sowing but does best from transplants. ①

4311 ***A****: 1g, $2.95* ***B****: 4g, $4.50*
C*: 28g, $11.95* ***D****: 112g, $29.00*

Titanio Rose (120 days) *Not available in 2024.*

Yukihikari - ECO (120 days) OP. A landrace **lowland** variety from northern Japan, this short-grain light brown rice is hands down the most complex and floral rice we offer, with notes of sesame, maple and citrus. It is also our highest yielding in the right conditions. Grows best in well-saturated soil. Doesn't require paddies, but they help. In Zone 5b it can be grown from direct sowing but does best from transplants. ①

4315 ***A****: 1g, $3.00* ***B****: 4g, $4.50*
C*: 28g, $12.50* ***D****: 112g, $32.00*

SORGHUM

Texicoa Sorghum - Organic *Sorghum bicolor* (100 days) OP. This large corn-like plant domesticated in Africa is traditionally considered a southern crop. We were surprised to find a 4' grain sorghum being grown by a neighbor in central Maine. Texicoa matured its large dense heads just in time for our short season. More exceptionally, it maintained its productivity during a drought, which makes it a front runner in the climate-change sweepstakes. A white-seeded grain sorghum (also known as milo), Texicoa can be popped, but it is more often ground into a mild-flavored flour, cooked as a grain, or sometimes nixtamalized like corn for tortillas. Culture is similar to corn; expect tillers. Easy to thresh and attractive to birds. **Black Benefit Sharing**. ②

4316 ***A****: 4g, $3.95* ***B****: 12g, $6.75*
C*: 36g, $12.00* ***D****: 112g, $24.00*

WHEAT

Sirvinta Winter Wheat - Organic *Triticum aestivum* OP. Most wheat varieties offered to gardeners and small farmers are bred for and adapted to the prairie-type soils of the Upper Midwest. They are generally not as well-suited to the moister forest-based soils of the Northeast. Named after a river in Lithuania, Sirvinta is a modern awnless hard red winter variety developed in the Baltics, where soils and climate are more like New England's. In 1998 Fedco friend Raivo Vihman brought it back from Estonia and passed it along to Scatterseed founder Will Bonsall, who now considers it his favorite winter wheat to grow and eat in Maine. For larger quantities of Sirvinta seed, see page 131. About 21 seeds/g. ①

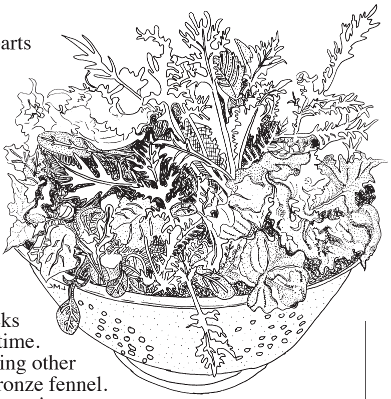
4330 ***A****: 7g, $1.95* ***B****: 28g, $3.15* ***C****: 112g, $7.85*

GREENS

Look for the snowflake symbol ❄ after each cultivar description for indication that a variety is hardy through at least a part of Northeast winters.

Days to maturity are from emergence after direct seeding.

GREENS MIXES



Mesclun OP. According to Rosalind Creasy, the original mesclun used all parts of the tongue, with a range of textures from crispy to velvety and of tastes from tangy to bitter. We'll send two packets: **2980** Lettuce Blend (page 41) and **2996** Mustard Blend (below). Harvest these greens by cutting the leaves with scissors, leaving 1–2" of foliage as well as the apical bud and several small leaves surrounding it, so that they can grow back. Plant each packet in adjoining beds or rows so that the mustards won't overwhelm the lettuces. Plant lettuces about 4 weeks earlier for them to mature at the same time. You can enhance your mesclun by adding other greens such as mâche, claytonia and bronze fennel. Add edible flowers of garlic chives, nasturtiums, violas, signet marigolds, borage and mustard blossoms to lend further appeal to the mix, creating delectable color, taste and texture contrasts.

2992 ***A**: 1g, $3.35* ***B**: 4g, $7.25* ***C**: 14g, $13.25*
***D**: 28g, $22.25* ***E**: 112g, $70.50*

Greens Mix - Organic OP. Versatile companion to **2983** DeLuxe Organic Lettuce Blend (page 41). At least five varieties, certified-organic seed, chosen from among beets, chard, arugula, mustards, orachs, purslane, chervil and kales suitable for mesclun or braising. Exact components will vary according to availability. For a fully organic salad, from seed to table. About 470 seeds/g.

2993 ***A**: 1g, $3.15* ***B**: 4g, $7.15* ***C**: 14g, $13.25*
***D**: 28g, $22.50* ***E**: 112g, $70.50*

Mustard Blend OP. A recently formulated mix of beautiful mustards. Includes greens, purples, pinks, streaked and frilled varieties. About 450 seeds/g.

2996 ***A**: 1g, $2.75* ***B**: 4g, $5.00* ***C**: 14g, $10.00*
***D**: 28g, $15.00* ***E**: 112g, $42.00*

Braising Mix (40 days) OP. A quick-growing mix of delicate and sturdy greens (and purples) full of flavor and body. Harvest from baby stage into maturity for a continuous mess of greens in your bowl. About 300 seeds/g.

2998 ***A**: 1g, $3.00* ***B**: 4g, $6.75* ***C**: 14g, $12.00*
***D**: 28g, $22.00* ***E**: 112g, $68.00*

❄ Season-Extending Greens ❄

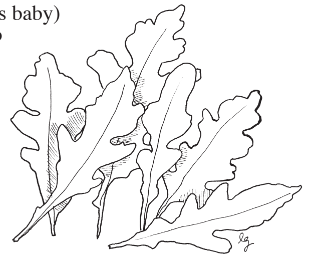
Greens marked with ❄ at the end of their descriptions are hardy through at least a portion of our winters in Zones 4 and 5, and probably with protection can survive the entire winter in Zone 6 and south. We continue our trials to add to this selection.

Cabbage pg 18
3391 Deadon Savoy Cabbage
Greens: Arugula pg 32
3020 Astro Arugula
3021 Ice-Bred Arugula
3022 Arugula
3027 Sylvetta Arugula
Greens: Specialty pg 34
3050 Claytonia
3102 Verte de Cambrai Mache
Greens: Asian pg 36
3204 White Flowered Kailaan
3218 Senposai
3220 Tatsoi
3257 Chinese Thick-Stem
Greens: Mustards pg 37
3236 Golden Frill
3239 Pink Lettucy Gene Pool
3243 Green Wave
3245 Red Giant
Kale & Collards pp 39-40
3449 Scarlet Kale
3450 Dwarf Blue Kale
3452 Redbor Kale
3453 Winterbor Kale
3457 Rainbow Lacinato Kale
3459 Darkibor Kale
3460 Russian Frills Kale
3461 Red Russian Kale
3463 Madeley Kale
3464 White Russian Kale
3445 Flash Collards
Lettuce pp 41-46
2988 Winter Lettuce Blend
2791 Tango Looseleaf
2722 Salad Bowl
2786 Red-Tinged Winter Looseleaf
2790 Merlot Looseleaf
2788 Oscarde Oakleaf
2796 Lollo Rosso
2814 North Pole Butterhead
2816 Winter Marvel Butterhead
2840 Brune d'Hiver Batavian
2849 Winter Density Romaine
2865 Rouge d'Hiver Romaine
2886 Winter Wonderland Romaine
Spinach pg 64
2500 Beaujolais
2509 Space
2512 Olympia
2538 Tundra
2539 Oceanside
2540 Bloomsdale
2555 Giant Winter
Parsley pg 90
3158 Gigante d'Italia Parsley
3166 Double Curled Parsley
3169 Krausa Parsley
3170 Plain Leaf Parsley
Miscellany
3471 Kolibri Kohlrabi (pg 40)
2439 Evergreen Hardy scallion (pg 54)
2393 Gilfeather Turnip greens (pg 82)

ARUGULA *Eruca sativa*

About 11,700-15,000 seeds/oz. Also known as Roquette or Rocket. Musky green and its piquant blossoms will spice up your salad.

Culture: Prefers cool temperatures; direct seed as early as possible in spring. **Optimum germination temp 40–55˚.** Bolts readily in heat; much better as a fall crop or succession planted. Use row covers to discourage flea beetles. Let some spring plants grow to seed and be rewarded with a self-sown September and October patch that is delicious and has no flea beetle damage! A prime ingredient in tangy mesclun mixes. Frequent watering will reduce its pungency. Suitable for microgreens.



Astro - Organic (35 days mature, 21 days baby) OP. After CR's first taste he was tempted to wisecrack that Astro is to real arugula as Astroturf is to real grass. But that would be grossly unfair. Yes, its pleasant tender texture and mild flavor might be a slight letdown for those of us who prefer our arugula more piquant. However, we found when it debuted in our catalog that many people prefer this milder strain, making it a top seller. Selected for profuse basal growth, Astro rockets into dense clusters of thick lush leaves for baby-greens harvest. Leaf shapes are a mix of smooth-edged and lobed. Grows equally well during cool and hot seasons, Astro came to us highly recommended by our West Coast seed farmers for its dependability and yield. ❄ ①

3020 ***A**: 1/16oz, $3.65* ***B**: 1/8oz, $5.35* ***C**: 1/2oz, $7.25*
***D**: 1oz, $11.00* ***E**: 4oz, $20.25* ***K**: 1#, $64.00*

Ice-Bred - Organic (44 days) OP. The best arugula to be found anywhere. Brett Grohsgal crossed two excellent European heirloom strains in 1989 and subsequently selected for cold hardiness and vigor, in the end breeding one tough cookie. Mid-ribs and whole leaves develop a lovely purple hue in winter freezes. Recovers in spring even if plant goes dormant under very cold conditions. Seedlings can stand drought, compete against weeds and don't require high soil fertility. They have been 1–2 days slower to bolt than other arugulas in our spring-sown plots. This is arugula with more bite, vigorous with complex full flavors. **Breeder Royalties.** ❄ ①

3021 ***A**: 1/16oz, $3.55* ***B**: 1/8oz, $5.55* ***C**: 1/2oz, $8.35*
***D**: 1oz, $12.25* ***E**: 4oz, $34.00*

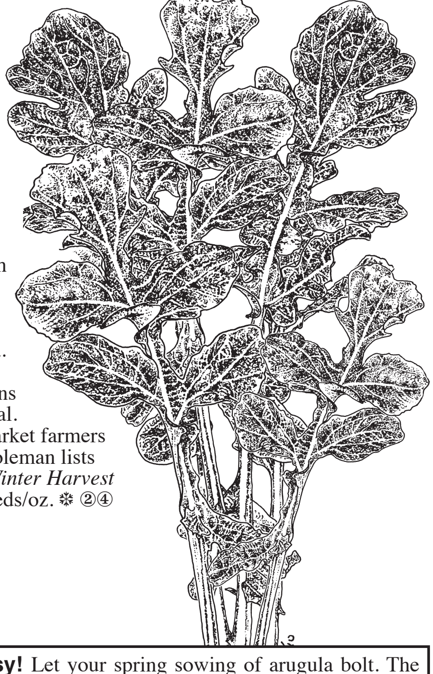
Arugula (47 days) OP. The best-tasting and most bolt-resistant of the strains in our 2017 trials (**3021** Ice-Bred was not included in that test). Stood temperatures down to 14˚ double-covered under row cover. ❄

Arugula ②④

3022 ***A**: 1/16oz, $2.85* ***B**: 1/8oz, $3.50* ***C**: 1/2oz, $4.55*
***D**: 1oz, $6.35* ***E**: 4oz, $8.50* ***K**: 1#, $21.50*
***L**: 5#, $85.00*

Arugula - Organic ①④

3023 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.25* ***C**: 1/2oz, $5.50*
***D**: 1oz, $7.75* ***E**: 4oz, $12.50* ***K**: 1#, $37.00*
***L**: 5#, $166.00*



Sylvetta Wild Arugula (50 days mature, 21 days baby) *Diplotaxis erucoides* OP. Also known as Rucola Selvatica, a must for extraordinary cold-season salads. A wild form of arugula, very deeply lobed dark green narrow leaves grow steadily, reaching 3" in 3 weeks, the perfect length for a 7" salad plate. Nutty, sweet, crisp and moderately spicy, Sylvetta grows foliage right to the rib base, no stem to trim. Please your restaurant accounts with this beautifully uniform arugula strain. Slower growing, smaller and more pungent than regular arugula. Out-competed eight other commercial-production strains in our summer endurance trial. Highly recommended for market farmers and gardeners alike. Eliot Coleman lists it as a winter staple in *The Winter Harvest Handbook*. About 83,700 seeds/oz. ❄ ②④

3027 ***A**: 1/16oz, $3.00*
***B**: 1/8oz, $4.50*
***C**: 1/2oz, $9.25*
***D**: 1oz, $13.00*
***E**: 4oz, $42.00*
***K**: 1#, $130.00*

Saving Arugula Seed Is Easy! Let your spring sowing of arugula bolt. The flowers develop into narrow seed pods. Once pods dry on the stems, they can be easily broken open for seed. See page 38 for more about seed saving.

CHARD *Beta vulgaris* (cicla group)

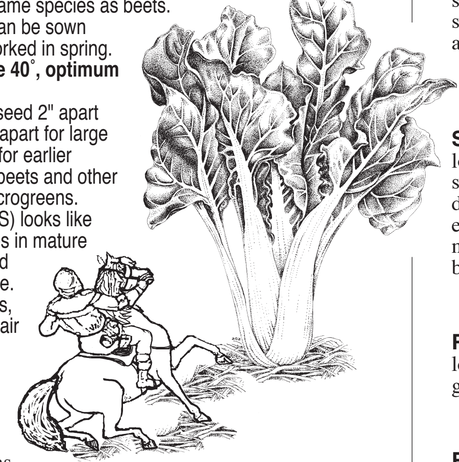
About 600–3,000 seeds/oz.

Salzer's 1915 catalog opines, "Swiss chard produces more food for the table than almost any other vegetable and it also requires less care; it yields a constant crop from July to winter." Same species as beets.

Culture: Hardy and easy to grow. Can be sown almost as soon as ground can be worked in spring. **Minimum germination temperature 40˚, optimum range 50–85˚.**

Space according to use—direct seed 2" apart for baby-leaf harvest; thin to 12–16" apart for large leaves. Start indoors and transplant for earlier harvests. Soften thick ribs of chard, beets and other greens by braising. Also used for microgreens.

Disease: Cercospora Leaf Spot (CLS) looks like someone shot small target-like circles in mature foliage. Prolonged periods of rain and high humidity exacerbate this disease. Rotating crops, removing plant debris, and wider row spacing for adequate air circulation are preventive measures.



Fordhook Giant (50 days) OP. Broad white stems, leaves dark green and savoyed with white veins. The standard variety, introduced by Burpee, in 1934 has developed a fair amount of variability in recent years. ②④

3031 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $3.50* ***C**: 1/2oz, $4.25*
***D**: 1oz, $6.00* ***E**: 4oz, $9.50* ***K**: 1#, $19.75*

Argentata (55 days) OP. Vigorous long-standing 2–3' plants tolerate a wide variety of weather conditions. Broad silvery-white midribs with a crispy sweet succulence and none of the oxalic aftertaste so common in other chards. The deep green savoyed leaves with a mild clean flavor make a great substitute for spinach in omelets, pasta dishes and casseroles. ②

3033 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.00* ***C**: 1/2oz, $7.25*
***D**: 1oz, $9.50* ***E**: 4oz, $24.00*

Perpetual Spinach or **Leaf Beet** (55 days) OP. Thanks to Pam Dawling for suggesting we add this member of the chard family. Leaf beet should be cultured like any other chard variety. It looks similar to other Swiss chards, but its stems are thinner and its exceptionally tender leaves are smoother, not puckered. It tastes unlike any other chard, imparting a spinach-like flavor that lingers pleasantly. Unlike spinach, Perpetual lasts through summer into fall as it withstands light and moderate frosts. Production from June to October, reports one central-Vermont grower. ②③

3034 ***A**: 1/16oz, $3.15* ***B**: 1/8oz, $3.80* ***C**: 1/2oz, $6.00*
***D**: 1oz, $9.25* ***E**: 4oz, $17.25* ***K**: 1#, $49.00*

Bali (55 days for bunching, 35–40 days baby leaf) OP. Bali chard is a spectrum leap from traditional rhubarb chard even at baby stage—it's like putting little red lightning bolts in your salad mix. With a very dark lush green fully savoyed leaf, the veins and stalk contrast like fiery lava. Mouthfeel is juicy and succulent; flavor very mild. No odd bolting or wilting, no beet-rooted rejects or wiggly weird stems. Excellent regrowth for multiple harvests. This is red-chard perfection from Bejo Seeds.

Bali ④

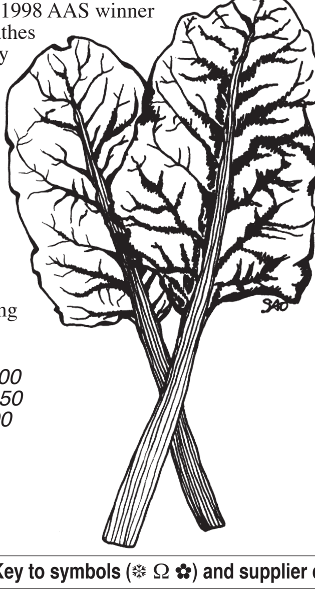
3035 ***A**: 1/16oz, $2.95* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $7.00*
***D**: 1oz, $9.25* ***E**: 4oz, $15.75* ***K**: 1#, $39.00*

Bali - Organic ①

3037 ***A**: 1/16oz, $4.50* ***B**: 1/8oz, $7.00* ***C**: 1/2oz, $13.00*
***D**: 1oz, $20.00* ***E**: 4oz, $58.00* ***K**: 1#, $209.00*

Bright Lights (56 days) OP. A best seller and 1998 AAS winner from Johnny's Selected Seeds. Bright Lights bathes stems, midribs and secondary veins in a panoply of gold, yellow, orange, pink, intermediate pastels and dazzling stripes. The tenderness of its dark green to bronze leaves and the mildness of its chard flavor impresses all who try it. Young seedlings respond to cut-and-come-again culture, ideal for mesclun. Developed by John Eaton of Lower Hutt, New Zealand, who found the parent plants, red and yellow, in a small home garden in 1977 and crossed them to standard green and white varieties, selecting for color and flavor over the next fifteen years. Johnny's worked the following years to preserve the strength and ra nge of the individual colors. ③

3036 ***A**: 1/16oz, $3.75* ***B**: 1/8oz, $5.00*
***C**: 1/2oz, $7.25* ***D**: 1oz, $10.50*
***E**: 4oz, $28.00* ***K**: 1#, $95.00*



Chervil: see page 87.
Parsley: see page 90.
Spinach: see page 64.

Golden Sunset - Organic (56 days) OP. The gold standard in chard and a first-rate ornamental edible. A once-rare color in chard, this strain stands out as a garden bouquet with its eye-catching splash of bright color. Large uniform glossy light-green semi-savoyed leaves contrast with bright yellow stems and veins. Excellent as a microgreen or as a baby leaf; becomes strikingly luminescent as the plant matures. This strain has been selected from an heirloom that was developed in the 1830s when it was originally known as Chilean beet. ①③

3038 ***A**: 1/16oz, $3.30* ***B**: 1/8oz, $4.60* ***C**: 1/2oz, $8.25*
***D**: 1oz, $12.50* ***E**: 4oz, $34.00*

Silverado - Organic (56 full size; 30 days baby leaf) OP. Mainers sure do love their Swiss chard: this easy-to-grow early crop brightens our chilly drear spring and keeps producing the whole season long. Silverado, with its glossy deep green crinkly leaves and bright white stems is much like Fordhook, except it is more compact, more deeply savoyed, more uniform and with a narrower stem. It is also slower to grow to its full 16" height and slower to bolt, which gives it a long harvest window. Tasty. Very cold tolerant. ③⑤

3039 ***A**: 1/16oz, $4.25* ***B**: 1/8oz, $6.25* ***C**: 1/2oz, $12.50*
***D**: 1oz, $20.00* ***E**: 4oz, $65.00*

Red Rhubarb - Organic (59 days) OP. Deep crimson stalks, dark green leaves. Very hardy. Beautiful for edible landscapes. Heirloom from Europe goes back to 1857. Shows some variability. ⑤

3041 ***A**: 1/16oz, $4.00* ***B**: 1/8oz, $6.00* ***C**: 1/2oz, $9.75*
***D**: 1oz, $15.00* ***E**: 4oz, $51.50* ***K**: 1#, $175.50*

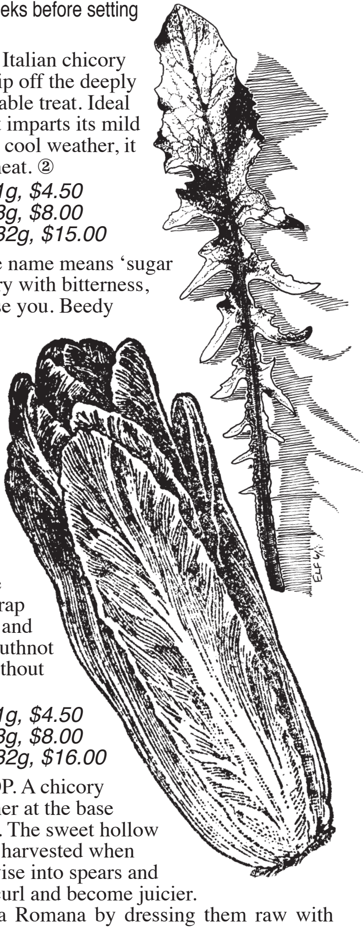
Rhubarb Supreme - Organic OP. No muddy colors in this improved red strain—clear rich red stems culminate in the contrast of deep green savoy leaves. The especially broad stems make an amazing presentation bunched for market. Moreover, this breeding collaboration—from Maine's own John Navazio, WA farmer Nash Huber and the Organic Seed Alliance—has resulted in more bolt resistance. ① **BACK!**

3042 ***A**: 1/16oz, $4.00* ***B**: 1/8oz, $6.00* ***C**: 1/2oz, $10.50*
***D**: 1oz, $15.00* ***E**: 4oz, $42.00* ***K**: 1#, $149.00*

CHICORY *Cichorium intybus*

About 450-600 seeds/g.

Culture: Performs best in cool weather, spring or fall. Direct seed every 3 weeks, or start indoors 4 weeks before setting out, and space 1' apart for heads.



Italiko Rosso (60 days) OP. Savory Italian chicory often mistaken for a red dandelion. Nip off the deeply toothed red-veined leaves for a delectable treat. Ideal for braising, good in spicy mesclun, it imparts its mild dandelion flavor. Moderately tangy in cool weather, it can be somewhat bitter in summer's heat. ②

3047 ***A**: 0.5g, $3.00* ***B**: 1g, $4.50*
***C**: 2g, $6.00* ***D**: 8g, $8.00*
***E**: 16g, $11.00* ***K**: 32g, $15.00*

Pan di Zucchero (80 days) OP. The name means 'sugar loaf' in Italian. If you associate chicory with bitterness, heirloom Pan di Zucchero will surprise you. Beedy Parker enthused in late August: "The seed was extraordinarily vigorous so I put it out in any stray place in the spring and have been eating it for weeks now; the white inner core as romaine lettuce and the outer tough darker green leaves in stir-fry… Resists weather extremes, drought in this case." Its 1' tall large tight light green leaves are shaped like a romaine lettuce crossed with a nappa cabbage. High yielding, best as a fall crop. Will store well for three months and survive for four if you wrap it tightly in slightly damp newspaper and keep it just above freezing. Lucie Arbuthnot compared it to witloof chicory, but without the extra work. ②

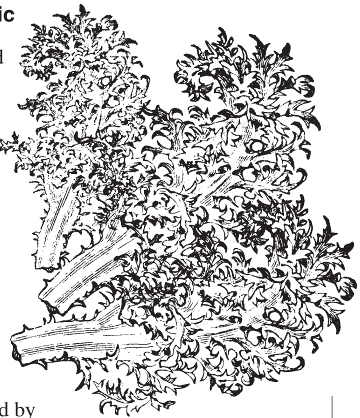
3048 ***A**: 0.5g, $3.00* ***B**: 1g, $4.50*
***C**: 2g, $6.00* ***D**: 8g, $8.00*
***E**: 16g, $11.00* ***K**: 32g, $16.00*

Puntarelle di Galatina (80 days) OP. A chicory grown for its stems, which join together at the base to form a swollen bulb-like vegetable. The sweet hollow stalks, with texture akin to celery, are harvested when young and tender, then sliced lengthwise into spears and soaked in ice water, causing them to curl and become juicier. Make the salad called Puntarelle alla Romana by dressing them raw with anchovies, garlic, red wine and olive oil, which brings out their flavors: hints of arugula spiciness combined with fennel overtones. The frilly leaves can be stripped off and cooked separately, or the stems can be cooked as well and served with such traditional Italian fare as beans and pasta. Transplant or direct seed. Best grown in fall and harvested before frost. ②

3049 ***A**: 0.5g, $3.00* ***B**: 1g, $4.50* ***C**: 2g, $6.25*
***D**: 8g, $12.00* ***E**: 16g, $20.00*

ENDIVE *Cichorium endivia*

About 16,000-22,000 seeds/oz. Culture same as chicory (page 33).



Très Fine Maraîchère Olesh - Organic (42 days) OP. Anne Elder reported this 19th-century French heirloom has changed her CSA members' minds about endive. "Wow, an endive that is sweet. Almost unheard of." Large frizzy endive with very fine ribs suitable for late spring and early summer harvests. Holds well in the field. Known to chefs as frisée. ③

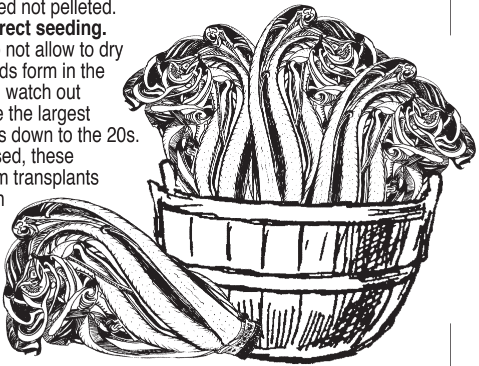
3063 ***A**: 1/16oz, $7.00*
***B**: 1/8oz, $10.00*
***C**: 1/2oz, $32.00*
***D**: 1oz, $54.00*

Full Heart Batavian (85 days) OP. Also known as Escarole. Smooth broad dark green outer leaves with creamy yellow closely bunched center leaves that Fearing Burr described as thick and fleshy in his 1863 *Field and Garden Vegetables*. Lauded by William Woys Weaver as a good salad green, not bitter. Especially good as a fall crop; tolerates frost under row cover. Best cooked—one Italian tradition is to braise with white beans, also makes a savory escarole and leek pie. ③

3092 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $8.25*
***D**: 1oz, $11.00* ***E**: 4oz, $20.75* ***K**: 1#, $60.00*

RADICCHIO *Cichorium intybus*

- About 580-1000 seeds/g. Seed not pelleted.
- Days to maturity are from direct seeding.



Culture: Culture like lettuce; do not allow to dry out. They are mature when heads form in the center. If you try direct-seeding, watch out for flea beetles. Fall crops make the largest heads. Very tolerant of fall frosts down to the 20s.

Wonderful in salads or braised, these radicchios are easy to raise from transplants although they have not yet been refined to absolute uniformity. Occasional plants still bolt unpredictably. The outer leaves are bitter; the edible centers are an acquired taste, retaining some bitterness. The folks at Adaptive Seeds suggest that steeping the leaves in ice water dissolves some of the bitterness.

Fiero (66 days) F-1 hybrid. Beautiful elongated upright radicchio. Deeply ribbed leaves with a branching pattern; the whitish veins blush green along the margins and branches, creating a spectacular color contrast with the purplish background. Early and delicious, a reliable header. ④

3187 ***A**: 0.05g, $4.45* ***B**: 0.1g, $6.00* ***C**: 0.2g, $9.25*
***D**: 0.4g, $17.00* ***E**: 1.6g, $52.00* ***K**: 3.2g, $87.00*

Indigo (69 days) F-1 hybrid. We've never seen a radicchio produce such consistently large tight heads of extraordinary rich interior color. Nikos rated it one of the sweetest red radicchios she's ever tasted. Tipburn resistant. ④

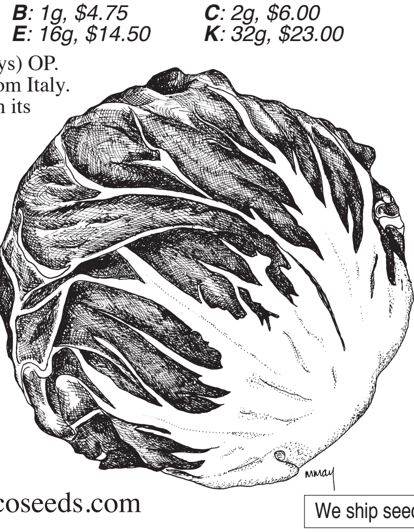
3188 ***A**: 0.05g, $4.25* ***B**: 0.1g, $6.25* ***C**: 0.2g, $10.00*
***D**: 0.4g, $16.75* ***E**: 1.6g, $52.00* ***K**: 3.2g, $91.00*

Radicchio di Treviso (80 days) OP. Shaped almost like a small romaine lettuce, turns from green to variegated dark burgundy with lovely white veining as the nights grow cold. As its narrow leaves bunch like a romaine, you can bind them with a ribbon to make a firmer "head." Best for fall crops. ②

3189 ***A**: 0.5g, $3.25* ***B**: 1g, $4.75* ***C**: 2g, $6.00*
***D**: 8g, $9.75* ***E**: 16g, $14.50* ***K**: 32g, $23.00*

Palla di Fuoco Rossa (85 days) OP. Round-headed Chioggia-type from Italy. Palla di Fuoco impressed us with its deep burgundy heads with good uniformity. Its name means 'ball of red fire.' ②

3190 ***A**: 0.5g, $3.25*
***B**: 1g, $4.75*
***C**: 2g, $6.00*
***D**: 8g, $10.25*
***E**: 16g, $14.75*
***K**: 32g, $24.00*



SPECIALTY GREENS

CLAYTONIA *Montia perfoliata*

About 160 seeds/g. Direct seed in spring, 1/2" apart. Thin to 3" apart. Responds to cut-and-come-again culture and tolerates moderate frosts. For best quality, make at least one succession planting.

Claytonia (40 days) OP. Also known as **Winter Purslane** and **Miner's Lettuce**, it was the '49ers green of choice, rich in calcium and vitamin C. Claytonia's small heart-shaped leaves have a mild but succulent taste that we find attractive. We add it regularly to our mesclun. Barbara Damrosch says it "re-grows like crazy so you can get cut after cut off the same plant." ❆ ③

3050 ***A**: 0.5g, $4.00* ***B**: 1g, $5.25* ***C**: 2g, $8.00*
***D**: 8g, $18.00* ***E**: 16g, $29.00* ***K**: 32g, $47.00*

CRESS *Lepidium sativum*

About 9000-10,000 seeds/oz. Great for quick spicy microgreens. Likes cool temps. Also called **Garden Cress** to distinguish it from Watercres (next page).

Wrinkled Crinkled Crumpled Cress - Organic (30 days) OP.

Salad green that will impress.
Mix some lettuce, add some dress.
Stir it up, sit down and fress.
Banish cares and summer stress.

With a designer's eye, a discerning palate, and a breeder's deft touch, Frank Morton crossed Persian and curled cresses to create a gene pool, from which he selected Wrinkled Crinkled. Broad leaves are extremely ruffled and wrinkled along the margins and savoyed in the middle. A fluffy spicy addition to your salad mix, imparting a tang, plus an irresistible sweetness. Can be bunched for market. Ω **Breeder Royalties. OSSI** ①

3056 ***A**: 1/16oz, $3.95* ***B**: 1/8oz, $5.25* ***C**: 1/2oz, $8.95*
***D**: 1oz, $12.00* ***E**: 4oz, $27.00*

MÂCHE *Valerianella locusta*

Also known as Corn Salad, Dutch Corn Salad, Lamb's Lettuce, Field Salad and Fetticus, mâche has a unique nutty flavor.
Culture: Mâche seed requires 10–14 days to germinate. Never start in soil temperatures above 68˚ as excessive warmth triggers seed dormancy.

Verte de Cambrai (45 days) OP. A small-seeded small-leaved strain that performs especially well in cool or cold conditions and is the best kind for overwintering. Susan Coombs of Newton, MA, reported it happily growing in her garden in February. May be the same variety grown for Thomas Jefferson in 1810 under the name Candia. About 10,000 seeds/oz. ❆ ③

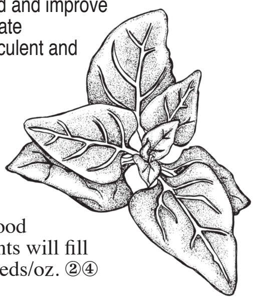
3102 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $6.00*
***D**: 1oz, $8.35* ***E**: 4oz, $22.25* ***K**: 1#, $56.00*

Large-Leaf Round (60 days) OP. Vigorous large-leaf type is suitable for sowing in spring for an early summer harvest. Bryan O'Hara says "always a favorite in winter salads." Weaver traces this strain back to the 1840s, but for centuries prior to that corn salad was gathered in the wild. About 10,600 seeds/oz. ②

3114 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $3.75* ***C**: 1/2oz, $5.50*
***D**: 1oz, $7.50* ***E**: 4oz, $13.00* ***K**: 1#, $35.00*

NEW ZEALAND SPINACH *Tetragonia tetragonioides*

Culture: Soak the nut-like seeds before sowing to speed and improve germination. Be patient and don't give up too soon. Irrigate frequently and pick often to keep leaves tender and succulent and to avoid yellowing. Will withstand frosts to the low 20s.



New Zealand Spinach (52 days) OP. Captain Cook's voyagers noted it in 1770 on the shores of Queen Charlotte's Sound in New Zealand. Doesn't look like a true spinach or taste like one, though some find it an acceptable substitute because it stands through the hot summer when true spinach bolts. Cooks have discovered it is a good green baked, especially in lasagna. Only a few plants will fill in your patch because *Tetragonia* sprawls. ~350 seeds/oz. ②④

2592 ***A**: 1/4oz, $3.65* ***B**: 1/2oz, $4.15*
***C**: 1oz, $6.50* ***D**: 4oz, $15.00* ***E**: 1#, $30.00*

PURSLANE *Portulaca oleracea* var. *sativa*

Culture: Direct seed in spring, after danger of frost. Thin to 5" apart. Can be cut; will regenerate. We recommend a succession planting to maximize tenderness. Can self-sow, but does not become weedy.

Its Latin name means 'milk-bearing vegetable.' Purslane leaves have more vitamin C than spinach and are rich in omega-3 fatty acids and antioxidants.

Golden (50 days) OP. Its wild relative, the common garden weed, was a favorite edible of both Thoreau and Gandhi. This domesticated strain is more erect than the wilding, with larger leaves, and not crawly. Succulent texture with a mildly acerbic flavor makes it an ideal addition to salad mixes. Golden-green leaves patterned like a cross. About 2000 seeds/g.

Golden - ECO ①

3181 ***A**: 0.5g, $3.25* ***B**: 1g, $4.25* ***C**: 2g, $6.50*

Golden - Organic ①

3182 ***A**: 0.5g, $3.50* ***B**: 1g, $4.75*

PERENNIAL GREENS

Caucasian Mountain Spinach - ECO *Hablitzia tamnoides* OP. Perennial to Zone 3. The surprise sensation of our 2015 catalog, *Hablitzia*'s success motivated us to ramp up our perennial selection. Too new to have an agreed-upon common name, this plant has everything else. Originating in the Caucasus, this very hardy perennial grows 6–9' long in 2–3 months once it's established. In very early spring when few other edible greens have surfaced, it offers tasty shoots and the subsequent leaves make a delicious tender spinach-like vegetable without any bitterness. Moreover, it's beautiful, was originally introduced into Sweden around 1870 as an attractive vine to screen manor houses with its heart-shaped leaves. And, finally, though it is best grown in sun to maximize its productivity, it will also do well in its native habitat, the understory of temperate forests. Best germinated with stratification, and slow-growing in the first year. About 1,360 seeds/g. ①

2590 ***A**: 0.1g, $4.25* ***B**: 0.2g, $5.75*
***C**: 0.4g, $9.00* ***D**: 1g, $13.25*

Good King Henry - ECO *Blitum bonus-henricus* OP. Perennial to Zone 3. Also known as Lincolnshire Spinach. Used as a potherb, one of the first greens of spring and one of the last of fall. Harvest the dark green arrow-shaped leaves and use like spinach. Ancient plant used in festive meals, in meat dishes and as a side dish, very popular in Europe before it was supplanted by spinach. The name comes from *haganrich*, literally 'king of the hedge,' supposedly a goose-footed gremlin that helps around the house. (We could use one of those!) Prefers rich soil in semi-shady areas, though will grow in full sun. Stratify seeds: fluctuation of high and low temperatures aids germination. Direct sow in spring or fall or transplant very young seedlings in spring. Once established the plants don't like transplanting. Requires a year of growth before leaves can be harvested. Another name for this plant is Fat Hen, as stalks grow to 2 1/2' if left uncut, yielding a plethora of seeds beloved by chickens. About 160 seeds/g. ①

3096 ***A**: 0.5g, $3.50* ***B**: 1g, $4.75* ***C**: 2g, $7.25*
***D**: 8g, $16.50* ***E**: 16g, $25.00*

Sea Kale *Crambe maritima* OP. Perennial, probably to Zone 5. Native to the seashores of England and Ireland and popular in Victorian England. Once grown on a large scale as a winter substitute for asparagus, cultivated for its blanched tender delicate ivory-colored leaf stalks that can be boiled or steamed to provide a good source of vitamin C. Sea Kale grows up to 3' forming a beautiful rosette of wavy-edged thick silvery-grey leaves and dense racemes of small white highly fragrant flowers in midsummer. Plants die back in the winter, the ideal time to take cuttings of the fleshy side-roots to store in moist sand until setting out in soil in March. This is an easier way to generate plants than starting from seed. Scarify seeds or nick the big seed casings for better germination. Start indoors like broccoli, set out, protect to overwinter and begin harvesting the 2nd and subsequent years. Blanch the tender slightly bitter early spring shoots in absolute darkness under large pots, and harvest when the stems reach 3–10". Exposed to light, in its natural state Sea Kale is bitter and inedible. After blanching, allow plants to rebuild their strength for the following season. About 35 seeds/g. ①

3099 ***A**: 0.5g, $4.00* ***B**: 1g, $5.75* ***C**: 2g, $9.75*
***D**: 8g, $16.00* ***E**: 16g, $28.00*

Broad-Leaved Sorrel (60 days) *Rumex acetosa* OP. Perennial to Zone 3. Often known as Sour Grass. Likes cool weather, acid soil, partial shade and plenty of water to retard bolting. In spring it rapidly shoots up its thick sword-shaped lemony-flavored leaves. If left untouched will grow up to 18" and make seed stalks. Use for microgreens or snip the leaves while they are still young and tender. Keep cutting and never let them grow big and coarse or go to seed. If they get away, mow the plant close to the ground and it will regenerate. Or treat as a biennial by planting a new patch every year and rotating the old out of production. Young leaves add tang to soups and salads and provide a welcome spring tonic. Tony Ricci of Green Heron Farm in PA recommends grilling fish wrapped in sorrel leaves surrounded by foil to impart an herbal-lemon flavor to the fish. About 25,500 seeds/oz. ②

3192 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.25* ***C**: 1/2oz, $5.75*
***D**: 1oz, $8.00* ***E**: 4oz, $18.00*

Watercress (60 days) *Nasturtium officinale* OP. Perennial to Zone 4, native to Europe. Start seeds indoors and transplant to cold frame, keeping watered, or direct sow in soggy stream bank. Also good in pots. Likes sunshine. Keep picked; it gets bitter once flowers form. Its peppery taste enhances many a salad, soup and tea. Super-nutritious, it is high in vitamin C, calcium and iron. According to UConn researchers, contains a compound that inhibits numerous types of cancers. Since ancient China and Egypt, has had widespread culinary and medicinal uses. It is also a candidate for possible use in phyto-remediation or wastewater treatment operations. Potentially invasive; *we cannot ship to CT or IL* where it is banned. In other warm moist locations, keep a close eye on plantings to prevent its unwanted spread. Its many uses perfectly illustrate the conundrum posed by potentially invasive plants: how do we find ways to rein in their rampant growth and harness their many benefits instead of banning them? About 22,000 seeds/oz. ②

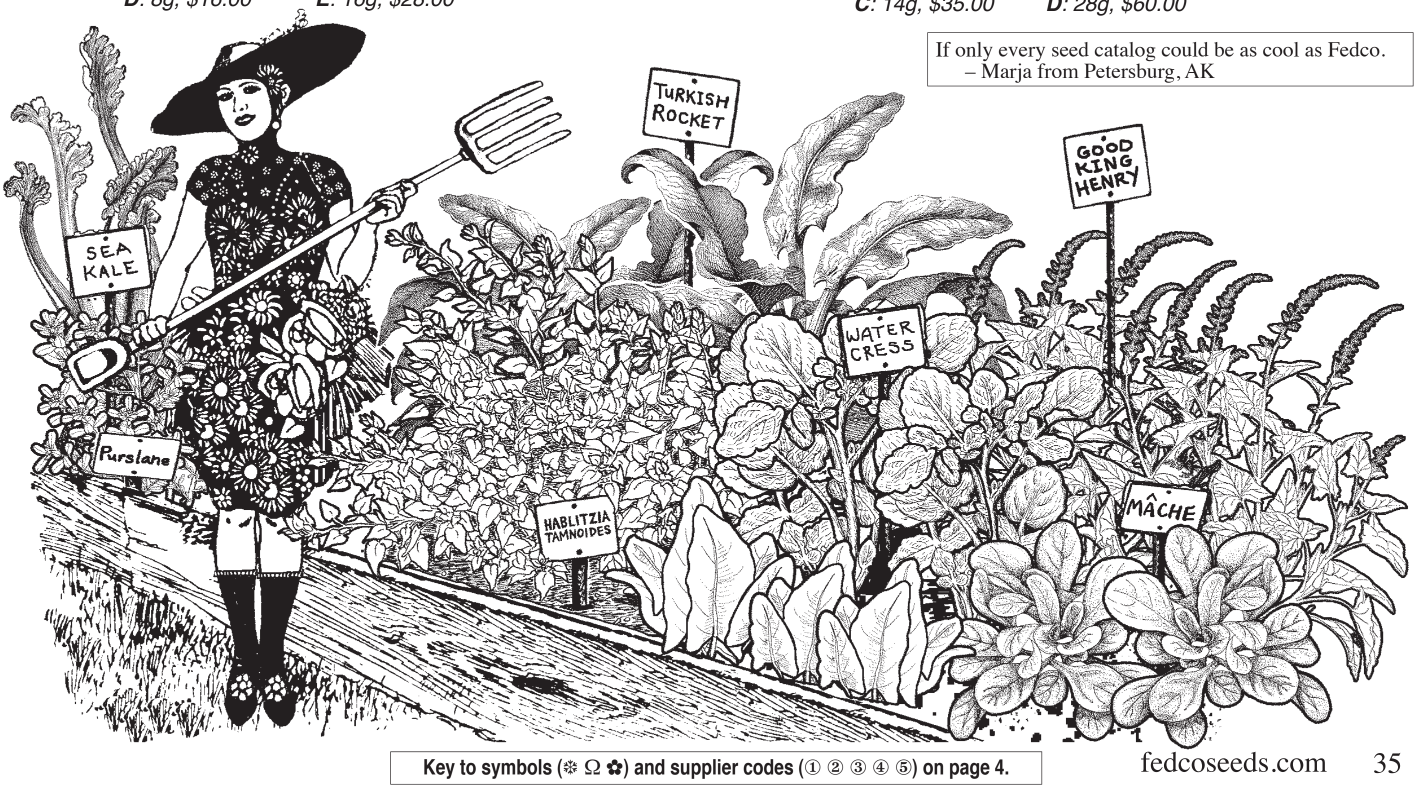
3058 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $4.75* ***C**: 1/2oz, $16.00*
***D**: 1oz, $24.00* ***E**: 4oz, $65.00*

Avona Watercress - Organic *Dropped by our supplier.*

Turkish Rocket - ECO *Bunias orientalis* OP. Perennial to Zone 4. Feeling defeated by flea beetles? Nikos just about gave up on growing brassicas in her garden, but when Aaron Parker brought Turkish Rocket seeds to the 2017 Seed Swap and Scionwood Exchange, she picked up a few anyway, tempted by the promise of direct-seeded perennial vegetables and by Aaron's reputation for growing cool plants. To her delight, the flea beetles turned up their noses at this new arrival, allowing ongoing harvest of tender spicy mustard greens and florets for stir-frying throughout the month of May. Larger leaves are harvestable through the growing season, with another flush of new growth starting in mid to late August. In the perennial garden, these plants stick up for themselves as attractive mounds of bright pointed leaves that shade out weeds. Drought-tolerant with a deep taproot that brings up moisture and minerals, this Rocket attracts beneficial insects and can be used as animal fodder. Considered invasive in some locales, this seem to be less of a problem in Maine. However, attentive deadheading will eliminate that possibility. *No sales to Wisconsin*. ①

3195 ***A**: 1g, $5.25* ***B**: 4g, $14.00*
***C**: 14g, $35.00* ***D**: 28g, $60.00*

If only every seed catalog could be as cool as Fedco.
– Marja from Petersburg, AK



ASIAN GREENS

Brassica spp.

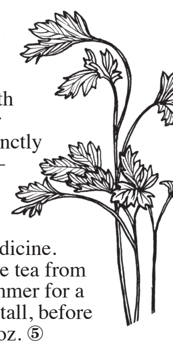
- All Asian greens are **open-pollinated** except where noted.
- **Days to maturity are from emergence after sowing; from transplant, subtract 20 days.**

Culture: Wire hoops and row cover (page 142) keep out flea beetle and are a must for pristine salad or braising mixes!

Diseases:

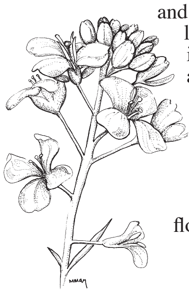
ALTS	Alternaria Leaf Spot	BSR	Bacterial Soft Rot
BL	Black Leg	DM	Downy Mildew
BR	Black Rot		

Note: Due to Black Leg quarantine issued by Oregon, we cannot ship Asian brassica greens packets larger than 1/2 oz (14g) into the Willamette Valley except those that have tested negative for Black Leg and Black Rot. Our information at press time is in the descriptions here; please check our website for updates.



Garland Serrated Chrysanthemum (40 days) *Glebionis coronaria* OP. Grown for its aromatic greens with an unusual taste appreciated by devotees. This strain was superior to other Shungiku varieties in our trial. Its 3" flowers (buttercup yellow, edged in white with serrated tips) were larger and better for the edible flower market and its small grey-green serrated leaves had distinctly more chrysanthemum taste. It also makes a great yellow-dye plant. The Japanese use it in hearty one-pot winter stews known as oden. Also good in salads, soups and stir-fries. Customer Tom Hurrle from Chicago reports that "the flowers are in the pharmacopeia of Chinese medicine. They clear inflammation/irritation from the eyes. And the tea from the flowers is tasty." Plant thickly in early spring (or summer for a fall crop) and harvest green leaves when stems are 4–8" tall, before buds appear. Sometimes self-sows. About 11,000 seeds/oz. ⑤

3203 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $6.25*
***D**: 1oz, $9.00* ***E**: 4oz, $25.00*



White Flowered Kailaan (45-60 days) *B. oleracea* F-1 hybrid. Also known as Chinese Broccoli, Chinese Kale or Gai Lan. Grown for its succulent stalks and leaves, it sends up tender 8" shoots topped with elegant little loose florets. Once the main stalk is cut, it coppices into many secondary shoots. The stems are snappy and a little spicy, excellent lightly steamed or stir-fried. Heat and cold tolerant, thrives in a wide range of climates and can be planted in late spring, late summer or early fall. Buds open to pretty four-petaled white blossoms. Catalog editor Elisabeth direct-seeded hers in spring under row cover and was harvesting florets through October—some for the skillet and some for summer flower bouquets. About 140 seeds/g. ❄ ⑤

3204 ***A**: 2g, $3.25* ***B**: 4g, $4.50*
***C**: 14g, $9.75* ***D**: 28g, $12.00*
***E**: 112g, $32.00* ***K**: 448g, $79.00*

Hon Tsai Tai (37 days) *B. rapa* OP. Chinese specialty vegetable also known as Purple-flowered Choy Sum, meaning 'vegetable heart' or 'flowering stem' in Cantonese. The flower stalks, leaf stalks and buds are deep purple, with color intensifying in cold weather. Grows vigorously in fertile soil, producing up to forty pencil-thick flowering shoots, though much skimpier on poor ground. Shoots and leaves have a pleasant mild mustardy flavor good for stir-fries, braising and soups. Also good for microgreens. Grows best in cool weather, ideal when sown in late summer for a fall crop or in fall for an early winter crop in warmer climates. Hardy to 23°. May bolt prematurely in midsummer heat. About 9,000 seeds/oz. ⑤

3205 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $6.50*
***D**: 1oz, $9.75* ***E**: 4oz, $24.00* ***K**: 1#, $65.00*

Maruba Santoh (35 days) *B. r.* (pekinensis group) OP. Delicious at all stages of growth. The loose round vibrant chartreuse leaves provide a mild piquant mustardy flavor while the flat white stems impart a juicy crisp pac choi taste. High-end chefs like to use the blossoms. Market grower Scott Howell finds the flavor more subtle and complex than that of other greens and cuts Maruba small for his mesclun. Fairly bolt tolerant, so plant after the early spring flea beetle invasion subsides. About 8,000 seeds/oz. ⑤

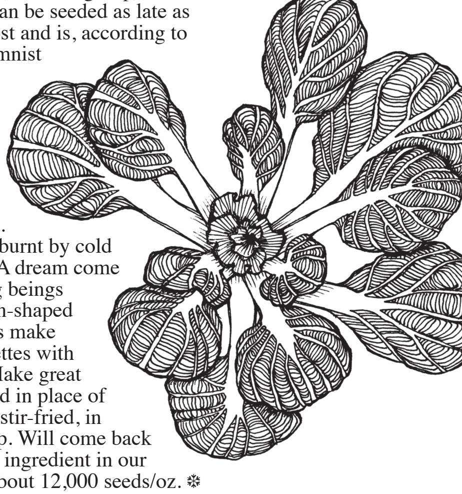
3209 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.25* ***C**: 1/2oz, $6.75*
***D**: 1oz, $8.50* ***E**: 4oz, $17.00* ***K**: 1#, $46.00*

Lady Murasaki Komatsuna (45 days) *B. r.* OP. Lady Murasaki, the courtly author of *The Tale of Genji*, considered one of the world's first and finest novels, is an apt namesake for this elegant komatsuna (Japanese mustard spinach). *Murasaki* means 'purple' in Japanese—and this variety is so very purple that it lured me through a field of about three dozen other kinds of greens to get a closer look. The slow-growing 8–10" deep purple rounded leaves stand beautifully, without bolting, and are mild and delectable all the way through the season. About 7,000 seeds/oz. ⑤

3216 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $4.75* ***C**: 1/2oz, $10.00*

Senposai (40 days) F-1 hybrid. Developed in Japan, a cross between komatsuna (Japanese mustard spinach) and regular cabbage. "Customers buy it once because it looks absolutely stunning, then they buy it again because it is extremely delicious. Absurdly productive and easy to grow," raves John Eisenstein of Port Royal, PA. Round medium-green leaves are wonderful in okonomiyaki or for braising. A spring sowing will stand the entire summer (even through drought) and well into fall before bolting. Can be overwintered in warmer climes or used for spring greenhouse salad production because it grows so fast. Open plant habit needs 12–18" spacing. About 6500 seeds/oz. ❄ ⑤

3218 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $7.25*
***D**: 1oz, $12.00* ***E**: 4oz, $29.00* ***K**: 1#, $96.00*



Tatsoi (45 days) *B. r.* (narinosa group) OP. What grows quickly, can be seeded as late as August, withstands frost and is, according to Orlando Sentinel columnist Sherry Boas, "just as versatile as spinach"? Yes, Tatsoi, also known as Tah Tsai. In Michigan, Anne Elder has picked it all fall into December even after a snow melt. Remains sweet and unburnt by cold during mild winters. "A dream come true for snow-dwelling beings craving greens." Spoon-shaped thick dark green leaves make beautiful compact rosettes with mild brassica flavor. Make great microgreens. Also good in place of lettuce in sandwiches, stir-fried, in quiche, lasagna or soup. Will come back when cut. An essential ingredient in our salads and mesclun. About 12,000 seeds/oz. ❄

Tatsoi Tested negative for BR and BL. ⑤

3220 ***A**: 1/16oz, $2.85* ***B**: 1/8oz, $4.15* ***C**: 1/2oz, $5.85*
***D**: 1oz, $8.50* ***E**: 4oz, $20.00* ***K**: 1#, $66.00*
***L**: 5#, $315.00*

Tatsoi - Organic ④

3221 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.25* ***C**: 1/2oz, $6.50*
***D**: 1oz, $8.50* ***E**: 4oz, $26.00* ***K**: 1#, $90.00*

Yokatta-Na (21 days baby; 45 days mature) *B. r.* (narinosa group) F-1 hybrid. "What a surprise! The heads grow well larger than a foot tall and we ate the 2nd growth heads whole like young bok choy," reported the Wolperts in Belington, WV. Quick-growing and versatile, tolerating both heat and cold, Yokatta can extend your season at either end, while simultaneously broadening your culinary range. Use it either raw in salad mixes or cooked in stir-fries. The deep green tender leaves, though flavorful, lack the mustard "bite" found in so many Asian greens and can be harvested as a cut-and-come-again crop or at maturity. ④

3223 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $8.00*
***D**: 1oz, $13.50* ***E**: 4oz, $35.00*

Even' Star Chinese Thick-Stem - Organic (47 days mesclun; 62 days full size) *B. juncea* OP. When farmer-breeder Brett Grohsgal passed out samples of his winter-hardy greens at two workshops at a PASA conference, this green mustard was the hands-down favorite. Grohsgal believes this mustard has the "best balance between sweet succulence and moderate pungency of any of the five I grow." He called it Thick-Stem in honor of its enlarged midribs that give a heavier harvest for the farmer and better mass for the restaurant or home chef. Terrific for mesclun and an excellent cut-and-come-again performer with fast regrowth. Grohsgal has bred it for 100% freeze tolerance in Maryland; it survived our overwinter test in Maine. Needs good soil fertility, prefers clay or loam to sand, dislikes drought but can take wet. **Breeder Royalties.** ❄ ①

3257 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $6.00* ***C**: 1/2oz, $17.00*
***D**: 1oz, $28.00* ***E**: 4oz, $58.00*

Free shipping for seed orders $50 and up!

CHINESE CABBAGE *B. rapa*

About 6,000–9000 seeds/oz.

Tokyo Bekana - Organic (20 days baby, 45 days full size) OP. These pale green baby Chinese cabbages may be bunched for market or their ruffled curled lettucy leaves cut to add loft and weight to salad mixes. Bekana will regrow for multiple cuttings and branch out, giving lots of edible leaves with very little coarse stalk. Lacy, mild, sweet, a bit like lettuce but never bitter and makes a good slaw. The late Adam Tomash seeded his on July 6 for a late Aug.–Sept. harvest. It could be sowed later and, with protection, produce into late fall. But Bryan O'Hara says not as winter-hardy as mizuna or tatsoi. Thin to 4–6" for full "heads." ③⑤

3222 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.00* ***C**: 1/2oz, $6.00*
***D**: 1oz, $10.00* ***E**: 4oz, $26.00* ***K**: 1#, $87.00*

Fun Jen (45 days) A good lettucy-type Chinese cabbage featuring fast-growing undulating leaves with a slightly wrinkly surface. Semi-loose conical very light yellow-green ruffled 6x10" heads of crunchy texture and very mild delicate flavor somewhat like lettuce. The thick white ribs are tasty with a pleasing light tangy sweetness. Excellent frost resistance but will bolt in heat after standing 2–4 weeks. Stores very well. *We're not sure yet when this seed crop will arrive at our warehouse. Check website for availability.*

Blues (52 days) F-1 hybrid. Good bolt resistance, disease resistance and taste in this nappa type. Flavor is relatively pungent, great in kimchi. Suitable for planting early spring through July. Tested negative for BR and BL. Moderate tolerance to DM, ALTS, BSR. ⑤

3225 ***A**: 250 seeds, $4.65*
***B**: 500 seeds, $7.00*
***C**: 1,000 seeds, $13.00*
***D**: 5,000 seeds, $41.00*
***E**: 10,000 seeds, $75.00*

Red Dragon (60 days) F-1 hybrid. When Nikos spied this striking **purple-red** 10" Chinese cabbage one autumn in the farm-to-table garden of a NY restaurant, she was smitten. Vibrant color and robust flavor make it all-around fabulous in salads, stir-fries and ferments (purple kimchi!) A bit tricky to grow: heads are prone to internal tipburn. Growing instructions included with each packet. Also know as KN-RCC3. *3-4% green off-types.* ③

3230 ***A**: 40 seeds, $3.25* ***B**: 80 seeds, $4.25*
***C**: 200 seeds, $6.75* ***D**: 400 seeds, $10.00*

MUSTARDS

About 8750–22,000 seeds per oz, with wide variability among varieties.

Versatile for tasty microgreens. Mustards are potent soil fumigants. Incorporating the residues of mustard crops into your soil can reduce fungal diseases in your succession crop. See the Farm Seed section (page 128) for mustard as a cover crop.

Garnet Giant - Organic (20 days baby; 45 days mature) *B. juncea* OP. Despite its name, this mustard is a favorite for cutting at its dark purple baby stage. At its giant 3' form, plants rival the best of fall color with vibrant maroon slightly toothed leaves on gangly lime green stems with yellow bolting flowers—the effect was glorious in our trial garden. The sweet spicy leaves, stems and flowers were all equally tender and delicious, whether grazed or braised. ①

3217 ***A**: 1/16oz, $3.15* ***B**: 1/8oz, $4.35* ***C**: 1/2oz, $6.35*
***D**: 1oz, $9.00* ***E**: 4oz, $23.50*

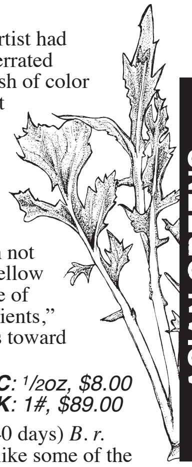
Yukina Savoy - Organic (45 days full size; 21 baby) *B. rapa* OP. This Asian green has a Japanese name that could be written 'snow, vegetable' or 'fortune, endure.' The auspicious tatsoi look-alike can survive those early fall freezes. Grows in rosettes like tatsoi, but bigger, more upright at 16" and with less shiny and more puckered leaves. Harvest young as a mild salad green or when mature for braising. The thick deep green spoon-shaped leaves are borne on pale green stems. Vigorous, easy to grow and quite *oishii*. ①③

3219 ***A**: 0.5g, $3.00* ***B**: 1g, $3.80* ***C**: 4g, $5.15*
***D**: 14g, $9.25* ***E**: 28g, $13.00* ***K**: 70g, $26.00*

Mizuna - Organic (40 days) *B. r.* (japonica group) OP. Recommended for northland salad enthusiasts, this vigorous heirloom Japanese mustard produces slender white stalks with deeply cut and fringed dark green leaves, not at all pungent. One planting could suffice for full-season production if watered in dry spells and kept cut, though a few will bolt in September. Many folks will prefer to make three or more succession plantings because the young leaves are the most tender. Biennial. Essential in mild mesclun and great for microgreens. ③④

3226 ***A**: 1/16oz, $2.75* ***B**: 1/8oz, $4.00* ***C**: 1/2oz, $5.25*
***D**: 1oz, $8.50* ***E**: 4oz, $21.00*

> Me and the pup and the Fedco catalog happily parked in a sun puddle on the couch while the garden sleeps under the snow. Thank you for the beloved seeds, stories, illustrations, ethics, and vision.
> – Marina from Perkinsville, VT



Ruby Streaks - Organic (40 days) *B. j.* OP. As if an artist had carefully brushed deep purple filigree on the delicately serrated leaves of Mizuna. Anne Elder describes it as "a sweet flash of color for any raw dish." Clayton Carter calls it "everything that the so-called Purple Mizuna should be." Bold coloring on deeply toothed leaves. Germinates quickly, grows speedily but, unlike Mizuna, bolts rapidly. Great for multiple spring and fall cuttings, but cannot stand heat. Provides a striking contrast when bunched with **3209** Maruba Santoh, **3222** Tokyo Bekana or **3226** Mizuna. Also unlike Mizuna, has a sweet and spicy flavor, though not excessively hot. Even after it bolts, its flower buds and yellow flowers can add a tang to salads. Carter calls it "the staple of my salad and braising mixes." "A big hit with my chef clients," reports Georgie Smith of Coupeville, WA. Color deepens toward darker maroon in the cool of autumn. ①

3227 ***A**: 1/16oz, $3.75* ***B**: 1/8oz, $5.15* ***C**: 1/2oz, $8.00*
***D**: 1oz, $12.00* ***E**: 4oz, $28.00* ***K**: 1#, $89.00*

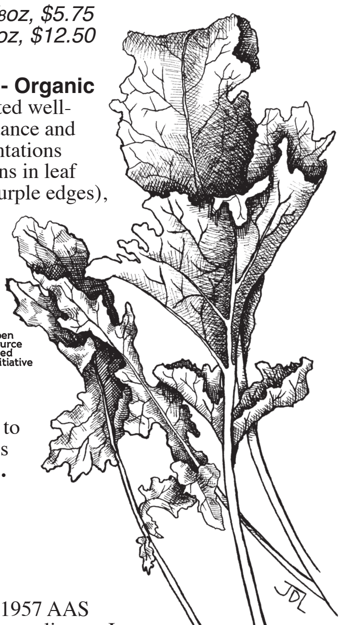
Mizspoona Salad Selects Gene Pool - Organic (40 days) *B. r.* OP. Hits the palate just right: doesn't bite the tongue off like some of the serious mustards, nor bore with blandness. Sweet, juicy with a bit of zing, medium-dark green variable leaves, some rounded, some pointed, slightly ribbed white veins. Tender and delicious in salads or braised. Farm-bred original from Frank Morton. **Breeder Royalties. OSSI** ①

3229 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.00* ***C**: 1/2oz, $9.00*

Golden Frill - Organic (20 days baby, 40 days mature) *B. j.* OP. Light golden-green leaves curl and furl, adding flounce to your salad mix. Intricate serration of foliage seems almost laser cut. Mustard flavor gives an acute peppery zing. Grows quickly for baby greens throughout the year and, at sauté size, resists bolting in the summer heat. Lacy texture tolerant to flea beetle damage. ❆ ①③⑤

3236 ***A**: 1/16oz, $4.00* ***B**: 1/8oz, $5.75*
***C**: 1/2oz, $9.00* ***D**: 1oz, $12.50*
***E**: 4oz, $36.00*

Pink Lettucy Mustard Gene Pool - Organic (40 days) *B. r.* OP. Frank Morton selected well-mixed breeding pools for disease resistance and particularly for pink and purple pigmentations on the midribs. Lots of variation remains in leaf color (from light green to green with purple edges), in indentations of the leaf edges and some in midrib coloration. Morton continues to select from the pool for specific types and you can, too. He is particularly interested in creating more color for baby cut salad mixes. Commercial operations will find a wealth of good cutting, home gardeners terrific salad fixings, mild but with just enough tang to keep you interested. Survived Roberta's overwintering trial. **Breeder Royalties. OSSI** ❆ ① **BACK!**



3239 ***A**: 1/16oz, $3.25*
***B**: 1/8oz, $4.75*
***C**: 1/2oz, $9.50*
***D**: 1oz, $15.00*

Green Wave (45 days) *B. j.* OP. This 1957 AAS winner is the best-adapted mustard for our climate. Its hot mustardy flavor and frilly leaf edges make it a prime ingredient in piquant mesclun. Not as hot when cooked. Perfect for a big mess of Southern-style mustard greens. Will come back when cut; slow to bolt. Survived Roberta's overwintering trial. ❆ ②

3243 ***A**: 1/16oz, $2.75* ***B**: 1/8oz, $3.50* ***C**: 1/2oz, $5.00*
***D**: 1oz, $7.00* ***E**: 4oz, $12.00* ***K**: 1#, $25.00*

Red Giant - Organic (45 days) *B. j.* (integlifolia group) OP. Large purple-tinted savoyed leaves make the 18" plants very decorative. Color intensifies in cooler temperatures, as spiciness wanes. Tastes like horseradish to some, peppery to others. This heirloom Japanese mustard is a standard ingredient in spicy mesclun. Survived outdoor temperatures down to 18° when double-covered with row cover (page 142). ❆ ③

3245 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.00*
***C**: 1/2oz, $6.00* ***D**: 1oz, $8.50*
***E**: 4oz, $18.00* ***K**: 1#, $58.00*

Saving Seed for Mustard Greens Is Easy! Let your spring sowing of mustards bolt. The flowers develop into narrow seed pods. Once pods dry on the stems, they can be easily broken open for seed. To ensure true-to-type seed, grow only one open-pollinated variety per season (or let only one flower!) See page 38 for more about seed saving.

more MUSTARDS

Osaka Purple - Organic (45 days) *B. j.* OP. Striking large purple-streaked green foliage with a zesty flavor that leaves a lingering tingle on the tongue. As the temperatures grow hotter, so do the leaves. A rapid grower, but more compact than Red Giant, mature at 12–14". Broad stems are also succulent. Used like Red Giant for mesclun and braising. ②

3247 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $9.50*
***D**: 1oz, $14.75* ***E**: 4oz, $30.00*

Purple Rapa Mix Gene Pool - Organic (45 days) OP. Another of Frank Morton's distinctive gene pools, a select population from crossing Pink Lettucy and Wong Bok with Scarlet Ohno. Morton touts its "huge seeds for big competitive seedlings." Competitive is an understatement. This one has vigor. Morton says best color in winter, but it was plenty showy from an April 18 sowing: tall frilly medium-hot serrated green leaves with purple veins and shading, with nice variation among plants. Juicy midribs with an invigorating tang that gained heat as the weather did. Refusing to bolt, they grew into giants by July 4. Plenty of great eating here. **Breeder Royalties. OSSI** ①

open source seed initiative

3249 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.75* ***C**: 1/2oz, $11.00*

Toraziroh - Organic (45 days) *B. oleracea (*alboglabra group) OP. A robust performer with just the right kind of mustardy bite, described by some as "zesty." Rapidly develops prolific yields of very dark green large tender leaves that can be harvested at full size or as baby greens; good for cut-and-come-again culture. Has won many favorable reviews from brassica lovers. Stems, also edible, have a flavor somewhat like pac choi. Relatively slow to bolt. It's becoming rarer in the marketplace, but we keep it going because we like it. ①

3253 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $8.00*
***D**: 1oz, $13.00* ***E**: 4oz, $35.00*

PAC CHOI *B. r.* (chinensis group)

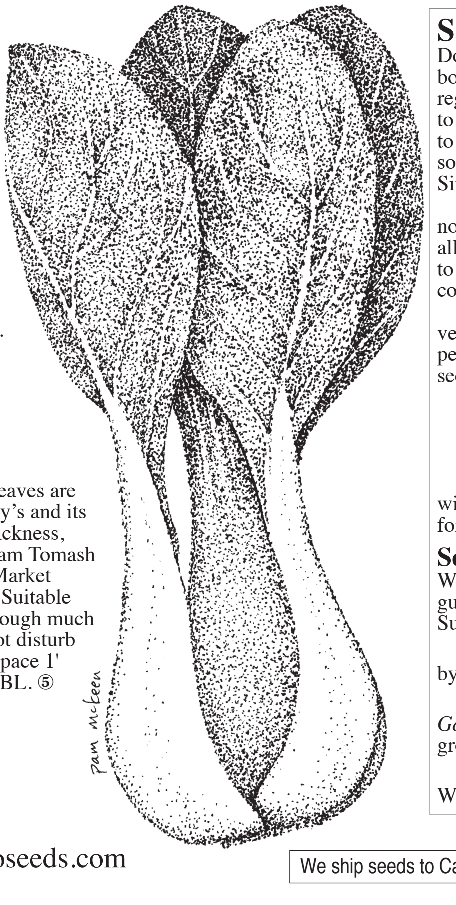
About 10,000–14,000 seeds/oz. 1 g packet sows 18 ft; 1/16 oz packet sows 30 ft.
Also known as Bok Choy. Pac Choi is a good crop for microgreens.

Choko (45 days) F-1 hybrid. Baby pac choi with green stems, likes cool temperatures but resists bolting. Vase-shaped 11" plants have broad green petioles, lighter in color than Shuko with beautifully cupped dark leaves. Heavy weight and compact. Tender and creamy when steamed or stir-fried. ⑤

3261 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $7.00*
***D**: 1oz, $11.00* ***E**: 4oz, $25.00* ***K**: 1#, $75.00*

Purple (48 days) F-1 hybrid. Adds versatility to mixes and salad. This new color in pac choi debuted in many 2009 seed catalogs. Our favorite of several strains in the trial, showed the most vigorous early growth and darkest hue. Purple leaf tops contrast with green veins and stems. Quick growers; harvest them within three weeks as 4–6" baby-leaf greens, their best spring use. For fall crops you may allow them to grow 8–10" full-sized heads. Along the way they lose some of their deep color and mature to a greenish purple. ②

3264 ***A**: 1g, $5.50*
***B**: 2g, $9.00*
***C**: 4g, $14.50*
***D**: 14g, $41.00*
***E**: 28g, $75.00*



Prize Choy - Organic (50 days) OP. Classy open-pollinated pac choi that has stood the test of time. An old Alf Christianson variety from the days when major companies were breeding and maintaining OPs. Celery-like white stems and vase-shaped 15–18" tall heads are like two vegetables in one with succulent stems and tender greens. Good for kimchi or stir-fries. ①

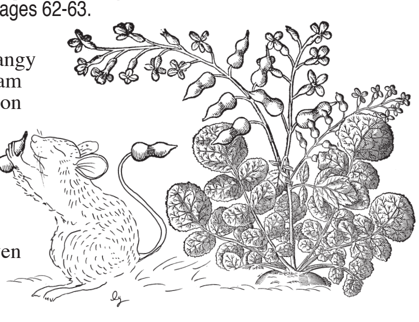
3270 ***A**: 1/16oz, $3.50*
***B**: 1/8oz, $4.50*
***C**: 1/2oz, $6.50*
***D**: 1oz, $10.75*
***E**: 4oz, $37.00*

Joi Choi (50 days) F-1 hybrid. Leaves are much darker green than Prize Choy's and its basal stem is almost double the thickness, making it so succulent the late Adam Tomash preferred it to all other varieties. Market growers appreciate its uniformity. Suitable both for summer and fall crops, though much less likely to bolt in the fall. Do not disturb the roots when transplanting and space 1' apart. Tested negative for BR and BL. ⑤

3273 ***A**: 1g, $5.00*
***B**: 2g, $8.00*
***C**: 4g, $12.00*
***D**: 14g, $34.00*
***E**: 28g, $60.00*

RADISH for pods *Raphanus sativus*

"Regular" radishes for roots on pages 62-63.

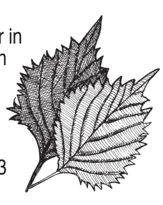


Rat-tail Radish - Organic (50 days) OP. Grown for its tangy seed pods, not its roots. William Woys Weaver called it "the Don Juan of radishes" because it so readily crosses with all others. Introduced from Japan in 1866-67 by seedsman J.H. Gregory. Attracts butterflies and other pollinators, worth growing even if you don't want to consume its pungent pods. Because these often grow as long as rats' tails and almost as fibrous, garden writer Barbara Damrosch advises harvesting them at "skinny bean size like a French filet bean" for maximum tenderness. The immature purplish-green pods are a delicacy in India and Asia, adding a mustardy zing to salads, stir-fries and other dishes. When exposed to vinegar the purple pods turn a brilliant green that will bleed into a pickling brine and enhance the color of cucumber pickles. Radish plants will grow to 5' and branch out as they set seed, so give them plenty of room. Stake or trellis them for ease of picking; tomato cages work well. Your objective is not a small root, but a generous supply of pods. ✿ ① **BACK!**

2264 ***A**: 1/8oz, $3.95* ***B**: 1/2oz, $11.25* ***C**: 1oz, $19.00*

SHISO *Perilla frutescens* var. *crispa*

About 500 seeds/g.



Highly aromatic and ornamental with frilly serrated leaves. Popular in Japan, the seeds, sprouts, leaves, buds and flowers are all used in cuisine. The seeds are part of Japan's famous seven-spice mix.

Culture: To break dormancy, freeze and thaw seed several times over a 21–45 day period. Soak seeds several days or until they sprout. Move to indoor flats, then transplant in warm moist well-drained soil after frost danger has passed. Or direct seed, 1–3 seeds/inch, very lightly covered in soil. Grows to 2'.

Kaori Green Shiso (85 days) *Dropped in 2024 for lack of sales.*

Red Shiso (85 days) OP. Introduced to the U.S. in the 1850s from Japan where it's been prized since the 8th century. Purplish-red anise-scented sharp-flavored leaves are used in sushi, sauces, garnishes, pickles and stir-fries. Used to color umeboshi and other pickles red. Also known as *zi su*, a specific in Chinese medicine for seafood poisoning. Louise Weber of Greenwich, CT, asserts that deer won't touch it and plants it around their favorite crops. ⑤

3283 ***A**: 1g, $3.75* ***B**: 4g, $7.00*
***C**: 12g, $13.00* ***D**: 36g, $26.00*

Save and Share Seeds!

Do you want to bypass seed shortages and supply bottlenecks? Preserve and pass on family or regional heirlooms? Develop seed that's adapted to your growing conditions? Do you want to embed the art and craft of ongoing food sovereignty into your life and community? Simple: Save seed and share seed.

Seed saving is a responsibility that should not be left to corporations. Now is the time for us all to save seed and work within our communities to make sure seeds are adapted to local growing conditions and available to everyone.

Where to start? We've highlighted throughout this catalog a handful of vegetables that are easiest to save seed from (see beans, cukes, many greens, peas, peppers and tomatoes). As you dream of next year's garden, plan with seed-saving in mind:

- choose open-pollinated varieties;
- consider isolation distances when laying out your garden plan;
- collaborate with other gardeners to diversify and share seed crops;
- pay attention to how a plant completes its life cycle.

One successful seed crop of a variety could result in enough seed to share with your whole town. If stored properly, most seed crops can remain viable for several seasons.

Seed-Saving Resources:

We offer some excellent books (pages 160-167) about seed saving (the basic guides are marked with a ✳). You can order them from our Organic Growers Supply order form:

✳ *Growing Garden Seeds: A Manual for Gardeners and Small Farmers* by Robert Johnston. A small affordable booklet for beginners.

✳ *Seed To Seed: Seed Saving and Growing Techniques for Vegetable Gardeners* by Suzanne Ashworth. The manual we give to all our seed growers.

• *Will Bonsall's Essential Guide to Radical, Self-Reliant Gardening* by Will Bonsall, who saves thousands of seed varieties.

KALE & COLLARDS

Brassica spp.

- About 175–280 seeds/g and 4200–9800 seeds/oz.

- Days to maturity are from emergence after direct sowing. For transplants, subtract 20 days.

Culture: Start indoors March–May for setting out May–July, or direct-seed in May. **Minimum germination soil temperature 40°, optimal range 45–85°.** To enjoy it at its best and to avoid the worst of the flea beetle season, direct seed in July or August for late-season maturity. Use wire hoops and row cover (page 142) to keep out flea beetles at early stages. Important crop in colder climates owing to its natural resistance to frost, kale is sweeter after exposure to cold. Excellent for microgreens.

Diseases: BL=Blackleg, BR=Black Rot

See **page 16** for pest and disease remedies.

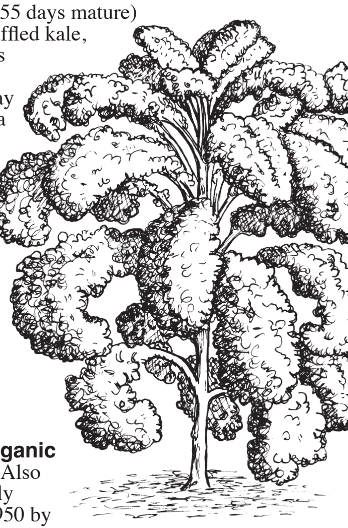
Note: Because of a rule in Oregon, we cannot ship brassica packets larger than 1/2 oz (14g) to the Willamette Valley, except those that have tested negative for Black Leg (BL) and Black Rot (BR). Our information at press time is in the descriptions here; please check our website for updates.

Kale Blend (60-65 days) If it's too hard to pick just one or two kale varieties from so many tempting choices, here's the solution: enjoy the whole medley of diverse colors, patterns and shapes from one packet.

3469 ***A****: 2g, $3.95* ***B****: 4g, $5.95* ***C****: 14g, $15.45*
D*: 28g, $24.00* ***E****: 112g, $65.00*

CURLY LEAF KALE *B. oleracea* (acephala group)

The names of many curly leaf kales end with "-bor" because these savoyed curly types are called *borecole* in Europe.



Scarlet - Organic (30 days baby, 55 days mature) OP. A reasonable and reliable red ruffled kale, which has seen us through shortages of Redbor—we kept it around after Redbor returned because it's OP, way cheaper, and certified organic! Just a little shorter than Redbor in height, slightly less crinkled leaf, and with deep rose color merging with purple. Enjoy plenty of striking frilly foliage, suitable for baby leaf or bunching. Cold hardy through at least part of the Maine winter. ❄ ③

3449 ***A****: 2g, $3.95*
B*: 4g, $5.85*
C*: 14g, $11.55*
D*: 28g, $19.75*
E*: 112g, $50.00*
K*: 448g, $102.00*

Dwarf Blue Scotch Curled - Organic (30 days baby, 56 days mature) OP. Also known as Vates. The most commonly grown kale variety, introduced in 1950 by Virginia Truck Experiment Station (Vates) out of the pre-1865 heirloom Dwarf Green Curled. Dense frilly finely curled blue-green leaves on compact upright 12–16" plants stand well, maintain color and resist yellowing in cold and heat. Hardy and productive. Best as a fall crop, planted in July or early August. More variable than the hybrids. ❄ ②

3450 ***A****: 2g, $3.75* ***B****: 4g, $5.50* ***C****: 14g, $9.50*
D*: 28g, $12.00* ***E****: 112g, $28.00* ***K****: 448g, $89.00*

Beedy's Camden (60 days) *Not available. We'll try again for 2025!*

Redbor (60 days) F-1 hybrid. A spectacular all-red kale, highest rated in the OSU trials. Frilly ruffled leaves take on dramatic purple color in cool weather. A superb ornamental edible, gorgeous enough to make a terrific flower border or edge plant. Can be grown in summer but really comes into its own in fall. Quite cold hardy. Grows to 3'. Much less susceptible to flea beetles than Red Russian, but not as delicious. Tested negative for BR and BL. ❄ ④

3452 ***A****: 0.2g, $6.00* ***B****: 1g, $13.75* ***C****: 4g, $45.00*
D*: 14g, $130.00*

Winterbor (60 days) F-1 hybrid. Beloved by commercial growers and home gardeners alike, crinkly Winterbor has been the most vigorous grower in our last kale trials, showing the best cold hardiness and the richest blue-green color. Curled leaves are highly ruffled with good mild flavor, especially after they've been tickled by some of our frigid November nights. 14–16" tall. Tested negative for BR and BL. ❄ ④

3453 ***A****: 0.2g, $4.50* ***B****: 1g, $7.45* ***C****: 4g, $18.00*
D*: 14g, $53.00* ***E****: 28g, $92.00*

Rainbow Lacinato - Organic (61 days) OP. Who but Frank Morton would think to cross **3467** Lacinato with **3452** Redbor? The result? A spectacular kale that combines some of the best features of both. Curly edges, red veins, purple leaves, blue-green leaves, make a banquet of diverse shapes and colors. Lacinato lends deepened background color to Redbor's productivity, super cold-hardiness and reluctance to bolt. A heavenly combination. Tested negative for BL. **OSSI** Ω ❄ ①

3457 ***A****: 2g, $4.00* ***B****: 4g, $6.00* ***C****: 14g, $12.75*
D*: 28g, $18.00* ***E****: 112g, $48.00* ***K****: 448g, $182.00*

Darkibor (65 days) F-1 hybrid. A top-quality Dutch variety with very dark green, triple-curled richly textured leaves. Crinkly and very curly. The uniform 18–20" tall plants hold well in the field in all weather conditions and continue to grow. Excellent for successive harvesting, Darkibor has comparable cold hardiness to Winterbor and holds its own in taste tests. Both OG and conventional tested negative for BR and BL. ❄

Darkibor ④

3459 ***A****: 0.2g, $4.80* ***B****: 1g, $7.95* ***C****: 4g, $19.25*
D*: 14g, $51.00* ***E****: 28g, $93.00*

Darkibor - Organic ④ **NEW!**

3458 ***A****: 0.2g, $5.35* ***B****: 1g, $12.50* ***C****: 4g, $41.00*
D*: 14g, $99.00* ***E****: 28g, $166.00*

ROUNDED LEAF KALE *B. o.* (acephala group)

Madeley - Organic (60 days) OP. Extremely hardy and vigorous heirloom kale from England with large rounded slightly savoyed green leaves that remind us a little of collards. Stays tender even when quite large. 'Twas the star of the over-wintering high tunnel for its productivity and ability to maintain structural integrity through the freeze-and-thaw cycles of January and February. Come March it fulfills our cravings for early spring greens. Related to Thousand Headed kale, it produces plentiful sprouting shoots for a spring raab substitute. Brought to this country by Adaptive Seeds when it was given to the Seeds Ambassadors Project by the Heritage Seed Library of England. Tested negative for BR and BL. ❄ ①

3463 ***A****: 2g, $3.65* ***B****: 4g, $4.95* ***C****: 14g, $12.00*
D*: 28g, $18.00* ***E****: 112g, $40.00* ***K****: 448g, $122.00*

DINOSAUR KALE *B. o.* (acephala group)

Dazzling Blue - Organic (60 days) OP. What fun! Vigorous 24–34" upright savoyed lacinato-leaved kale in a range of bluish-green shades and all with a dramatic pink mid-rib. Sure to attract attention of chefs, market growers and gardeners alike. Good flavor, selected for cold hardiness, and the color intensifies in cool weather. All the result of Hank Keogh's breeding inspiration to back-cross Rainbow Lacinato with its Lacinato predecessor. Bred for organic conditions, grown by Wild Garden Seeds and released through OSSI. You, too, will be dazzled. **OSSI** Ω ①

3465 ***A****: 2g, $4.00* ***B****: 4g, $5.75* ***C****: 14g, $14.50*
D*: 28g, $20.00* ***E****: 112g, $64.00*

Nero di Tuscana or **Lacinato** (62 days) OP. Also known as Cavolo Palmizio. The 'Tuscan Black' was described by Vilmorin-Andrieux in 1885 and traced back to the 18th c. by William Woys Weaver who calls it "one of the most beautiful kales to grace any kitchen garden" and suggests interplanting with a vivid green lettuce for a spectacular color combination. Elemental, a stripped-down version of kale shaped like a miniature palm tree about 18" high. Very dark green wrinkled strap-like leaves appear almost black at a distance, minimalist compared with the lush curly-leaved kales. Very sturdy, good for distributing into CSA boxes. Also used for microgreens. Delicious and nutritious as well as adapted to a wide temperature range, its sweet mild flavor improves after frost. According to Alan LePage, it demands more fertility than other kales. If it is looking anemic after the summer flea beetle invasions, LePage recommends sidedressing with fertilizer or compost. Using this treatment, he's grown 6' plants! ②

3467 ***A****: 2g, $3.70*
B*: 4g, $5.50*
C*: 14g, $8.95*
D*: 28g, $11.85*
E*: 112g, $17.45*
K*: 448g, $49.00*

Ω Independent plant breeders

Continuing a long tradition of adapting varieties to local tastes and conditions, independent breeders are the backbone of culture. For the most part eschewing plant patents, their work is their reward. Fedco is committed to buying seed from small breeders to give economic support to their work. Though we can find cheaper seed elsewhere, we prefer not to compromise on quality or ethics. We hope you agree—by purchasing seed with the Ω symbol.

I increasingly cherish Fedco each year…thank you for your excellence and sentience!
– Sarah from Duvall, WA

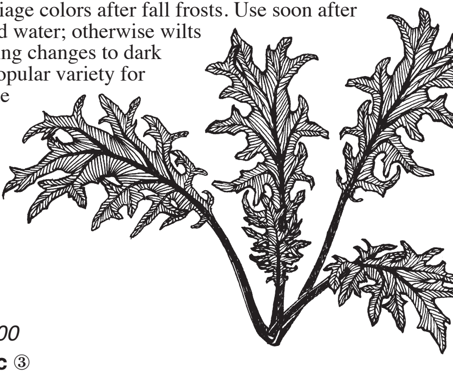
Key to symbols (❄ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

SIBERIAN KALE *B. napus* (pabularia group)

Russian Frills - Organic (55 days) OP. A re-introduction of an almost-lost Oregon variety by breeder extraordinaire Tim Peters. The folks at Adaptive Seeds discovered it being maintained by seedsman Peter Bauwens in Belgium. Similar to Red Russian when young, the purple and red-veined leaves get very frilly as they mature while remaining exceptionally tender. The dazzling frills upon frills upon frills make this 18–28" kale a great addition to kale bunches or mesclun mixes. With similar hardiness to **3464** White Russian, it makes a good plant for growing in plastic tunnels. Tested negative for BR and BL. **Breeder Royalties**. ❆ ①

3460 ***A***: *2g, $3.75* ***B***: *4g, $5.75* ***C***: *14g, $11.50*
D: *28g, $16.00* ***E***: *112g, $41.00*

Red Russian (60 days) OP. Called Buda Kale by Fearing Burr in 1863, Ragged Jack by Vilmorin-Andrieux in 1885, and Communist Kale in 2006 by workers at Darthia Farm in Gouldsboro, ME. Russian traders brought this Siberian heirloom to Canada in the 19th c. It has undergone a rousing revival. Vigorous edible landscape plant a big hit for its tenderness and delicate flavor. Its oakleaf foliage colors after fall frosts. Use soon after picking, or chill leaves in cold water; otherwise wilts quickly. Red and purple veining changes to dark green when cooked. Also a popular variety for microgreens. Tolerates outside temperatures of 14° with a double-layer of row cover (page 142). ❆



Red Russian ②③④

3461 ***A***: *2g, $3.25*
B: *4g, $4.00*
C: *14g, $5.00*
D: *28g, $7.00*
E: *112g, $11.00*
K: *448g, $28.00*
L: *2268g, $120.00*

Red Russian - Organic ③

3462 ***A***: *2g, $3.25* ***B***: *4g, $4.50* ***C***: *14g, $6.00*
D: *28g, $8.00* ***E***: *112g, $16.50* ***K***: *448g, $54.00*

White Russian - Organic (60 days) OP. A flat-leaf Siberian type, silvery green with white veining. Similar to Red Russian, but a few inches taller, a third more productive, with larger, more serrated leaves. Also, much hardier than Red Russian, will hold into November without protection and thrive in an unheated greenhouse, even if temperatures go down to 0°. Gene has harvested White Russian outdoors in Waterville out of the January snow. If season is extended, White Russian will produce new clusters of smaller tender secondary leaves from old axils. As with other kales, flavor gets sweeter with frost. **Breeder Royalties**. **OSSI** ❆ ①

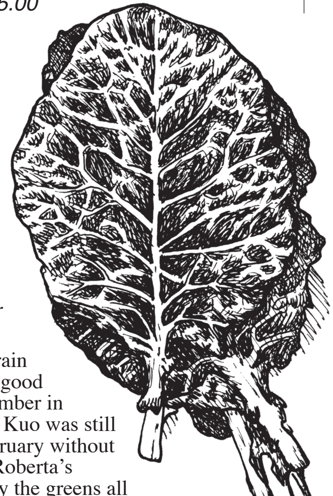
3464 ***A***: *2g, $3.35* ***B***: *4g, $4.95* ***C***: *14g, $10.95*
D: *28g, $15.00* ***E***: *112g, $36.00*

COLLARDS *B. o.* (acephala group)

~200 seeds/g. To avoid flea beetles, plant in July for September maturity.

Flash (55 days) F-1 hybrid. Despite the name, this is one collard that doesn't go by in a flash. Instead, its resistance to bolting combined with fast and vigorous regrowth after repeated harvests results overall in a high seasonal yield. This vigorous Vates type, with uniform, dark green, broad, smooth leaves grows in an open habit on plants just shy of 2'. ❆ ⑤

3445 ***A***: *2g, $4.95* ***B***: *4g, $8.75*
C: *14g, $22.00* ***D***: *28g, $35.00*



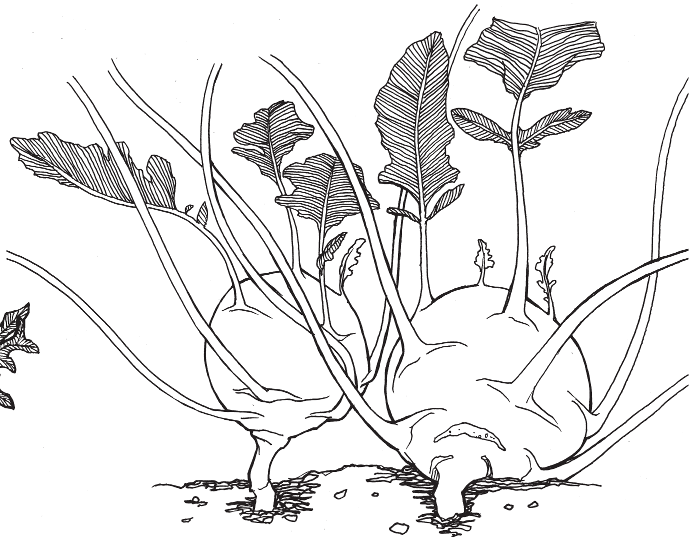
Vates (60 days) OP. Because of their cold hardiness, collards were a miracle crop that sustained many southern folks through the winters during the Great Depression. Vates is the acronym for Virginia Truck Experiment Station, a hotbed of collard research from 1907-1967. Introduced in the 1930s, this was probably the best-known of all the many developed there. Large upright $1^{1}/_{2}$–2' plants give generous harvests of dark green thick crumpled leaves with a mild cabbage-like flavor. Will overwinter in high tunnels in our climate. **Black Benefit Sharing**. ❆ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Champion (60 days) OP. Rich dark Vates strain selected to stand longer. Thin to 12" apart for good size. Best as a fall crop. For greens into November in northern New England. On Cape Cod, Lillian Kuo was still harvesting Champion the second week of February without protection over a mild winter. Also survived Roberta's overwintering trial. Our southern friends enjoy the greens all winter. **Black Benefit Sharing**. ❆ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Variegated Collards (61 days) *Not available in 2024. We hope to have this one back next year!*

KOHLRABI

B. o. (gongylodes group)



About 100–300 seeds/g. Don't like kohlrabi? Try harvesting it young. It turns tough, woody and inedible if you wait too long. Use wire hoops and row cover (page 142) to keep flea beetles out. See page 16 for more Brassica culture and disease information.

Konan (38 days) F-1 hybrid. Author Robert E. Howard's sword-and-sorcery hero emerges once again…as a Kohlrabi? Indeed, the legend continues! A nicely rounded $3^{1}/_{2}$" diameter head weighing $^{2}/_{3}$ lb, Konan's rampant health and vigor aided its conquest of our 2018 kohlrabi trial, where one Fedco staffer deemed its crunchy crisp texture and mild nutty sweetness "barbarically good." This bold brassica matured a week earlier than our long-held Winner and showed equally high quality. 2016 AAS winner. High resistance to FY. Tested negative for BR and BL. ④

3470 ***A***: *25 seeds, $3.75* ***B***: *100 seeds, $8.50*
C: *500 seeds, $30.00* ***D***: *1,000 seeds, $45.00*
E: *2,500 seeds, $94.00*

Kolibri (45 days) F-1 hybrid. Reaffirmed again as the best purple kohlrabi we've found: quick growing, very uniform, purple on the outside, crisp and white on the inside, reliable, tasty and productive. An August planting will size up in October. Very hardy; will winter over with only snow cover for protection. Interplant with **3036** Bright Lights Swiss chard (page 33) for a dazzling display. Tested negative for BR and BL. ❆

Kolibri ④

3471 ***A***: *0.5g, $5.75* ***B***: *1g, $8.15* ***C***: *4g, $21.00*
D: *14g, $58.00* ***E***: *28g, $110.00*

Kolibri - Organic ④ **NEW!**

3472 ***A***: *25 seeds, $5.50* ***B***: *100 seeds, $13.00*
C: *500 seeds, $27.00* ***D***: *1,000 seeds, $44.00*

Winner (45 days) F-1 hybrid. Longtime customer Brian Cramer of Hutchins Farm in Concord, MA, convinced CR to grow kohlrabi again for the first time in fifteen years. "Winner," Cramer said, "has been my most successful kohlrabi for many years, always beating out others I have tried in consistency, quality and appearance." Direct-seeded in late June into a severe drought, irrigated sparingly, thinned belatedly, it even survived his two-week midsummer absence and produced its lovely green stem bulb three weeks ahead of White Vienna. Its tender sweet flavor was a revelation. Tested negative for BR and BL. ⑤

3473 ***A***: *0.5g, $4.95* ***B***: *1g, $6.80* ***C***: *4g, $15.50*
D: *14g, $42.00* ***E***: *28g, $74.00*

White Vienna (58 days) OP. Dwarf heirloom with short tops and medium stems above uniform globe-shaped bulbs. Crisp white tender flesh with great flavor and texture. Performs well in taste tests. Don't overcrowd. From Central Europe before 1860. ②④

3475 ***A***: *2g, $2.95* ***B***: *4g, $3.50* ***C***: *14g, $4.75*
D: *28g, $5.75* ***E***: *112g, $9.85* ***K***: *448g, $23.00*

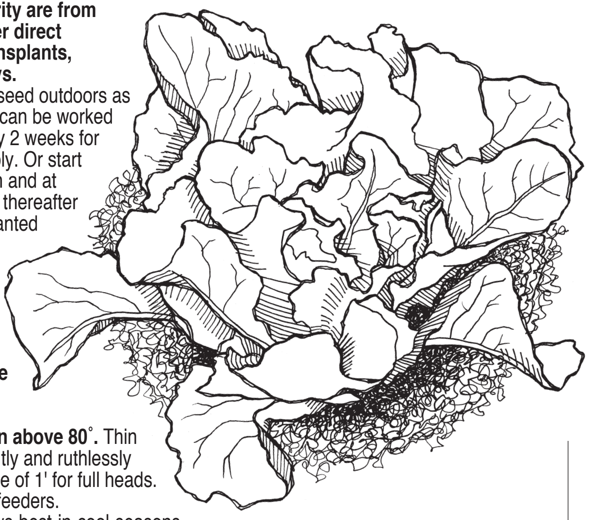
Gigante (130 days) OP. These get enormous, regularly exceeding 10" in diameter and 10 lb. Unlike other kohlrabi, this Czechoslovakian heirloom doesn't get woody even at such a large size. A root cellar staple, its crisp white mildly tangy flesh will add zest to your meals while you await the first edible greens of spring. Staffer Emily Skrobis praises Gigante: "It tastes alive in the dead of winter" and reports that her kohlrabi and carrot slaw is always a hit at potlucks. Sow in spring for late fall harvest. Leaves sweeten like a tender kale after a few hard frosts in the fall and stems likewise become as delicious as their broccoli counterparts. ③

3478 ***A***: *2g, $3.25* ***B***: *4g, $4.50* ***C***: *14g, $7.25*
D: *28g, $11.50* ***E***: *112g, $23.00*

LETTUCE

Lactuca sativa

- About 700–1100 seeds/g. All lettuce is **open-pollinated**.
- Days to maturity are from emergence after direct sowing; for transplants, subtract 20 days.



Culture: Direct seed outdoors as soon as ground can be worked and repeat every 2 weeks for continuous supply. Or start indoors in March and at regular intervals thereafter for early transplanted successions. **Optimal germination temperature range 40–70°; many varieties won't germinate in soil temps above 75° and most shut down above 80°.** Thin sowings frequently and ruthlessly to a final distance of 1' for full heads. Heavy nitrogen feeders.

Lettuce grows best in cool seasons with ample moisture. Fall and overwintered harvests are becoming standard practice. The snowflake symbol ❄ after a cultivar description indicates that a variety is hardy through at least part of our Maine winter. For summer harvest, select varieties carefully: bolting, bottom rot and tipburn are problems if a variety can't take the heat! Using shade cloth can keep lettuce tender and sweet longer into summer.

Diseases & Pests: See chart below right for more info.

BOR	Bottom Rot	SC	Sclerotinia
DM	Downy Mildew	TB	Tipburn
PM	Powdery Mildew	X	Xanthomonas

LETTUCE BLENDS

Each blend has at least 6 different lettuces, all suitable for cut-and-come-again culture. Exact components will vary according to availability and are posted on our website.

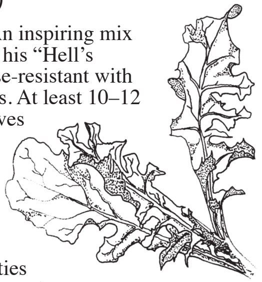
Lettuce Blend OP. Contrasting colors and leaf forms for your salad patch!

2980 ***A**: 1g, $2.95* ***B**: 4g, $5.15* ***C**: 14g, $10.25*
***D**: 28g, $16.25* ***E**: 112g, $50.00*

Lettuce Blend - Organic *Choose **2983** DeLuxe OG Blend instead!*

DeLuxe Lettuce Blend - Organic OP. Contains those fancy and rare varieties; the Mercedes Benz of lettuce mixes and all organic!

2983 ***A**: 1g, $3.85* ***B**: 4g, $8.15* ***C**: 14g, $16.25*
***D**: 28g, $27.00* ***E**: 112g, $95.00*



Freedom Lettuce Gene Pool - Organic OP. An inspiring mix with lots of surprises, Frank Morton created this in his "Hell's Half-Acre lettuce trial." He crossed his most disease-resistant with his best-tasting varieties to select for excellent traits. At least 10–12 "great looking and great tasting" variations won raves from trialer Donna Dyrek. Morton invites growers and breeders to work with this mix to create new varieties for their farms or for the general public, while stipulating that nothing derived from it may be patented or protected from others' use. This strategy is known as copyleft (as opposed to copyright). Morton has adopted it to keep his varieties and their derivatives in the public domain as a protected commons. Copyleft has the potential to return to free use such shared resources as our plant heritage that rightfully belong to all of us. (More about trait-patenting in sidebar at right.) As Morton proclaims, "Adaptive breeding cannot occur under a system of restrictive ownership." **OSSI** Ω ①

2984 ***A**: 1g, $4.75* ***B**: 4g, $11.75*

Red Carpet Lettuce Blend - Organic OP. Kate and Aimee's mixes are among the best in the business. They choose from all the superior organically grown bronze and red varieties we have in stock. Sure to dazzle.

2985 ***A**: 1g, $3.45* ***B**: 4g, $7.35* ***C**: 14g, $16.25*

Summer Lettuce Blend OP. A special selection of red, green and bronze lettuce varieties that most years will stand well into July without bolting. Our best-selling lettuce mix.

2986 ***A**: 1g, $2.85* ***B**: 4g, $6.65* ***C**: 14g, $12.25*
***D**: 28g, $22.25* ***E**: 112g, $70.50*

Winter Lettuce Blend OP. For those who crave fresh salads most of the year, a popular selection of varieties with the potential to survive the winter with protection, then resume vigorous growth in the spring. ❄

2988 ***A**: 1g, $3.15* ***B**: 4g, $7.15* ***C**: 14g, $12.75*
***D**: 28g, $22.50* ***E**: 112g, $70.50*

LOOSELEAF

These varieties, along with the Oakleafs, Deer Tongues and Lollo Rossos that follow, do not form tightly wrapped heads, but rather loose luxuriant whorls and mounds of leaves for salads, sandwiches and mixes.

Black Seeded Simpson - Organic (42 days) OP. The earliest and most popular looseleaf variety. "One of our absolute favorites for early season production with heads up to 16" diameter," said NY market lettuce grower Lisa Bloodnick. Large loose crumpled juicy light-green leaves slightly ruffled and blistered. Inner leaves tender and well blanched. Does not stand heat well; sow as early as ground can be worked. This heirloom probably came from England circa 1850. Showed some tolerance to germination in warm temperatures. Resists DM and TB. ②

2712 ***A**: 1g, $3.00* ***B**: 4g, $4.50* ***C**: 14g, $7.00*
***D**: 28g, $10.00* ***E**: 112g, $26.00*

Green Ice - Organic (45 days) OP. Burpee's well-known variety, a cross between a compact butterhead type and large looseleaf varieties was thirteen years in the making and the first variety patented under the 1970 Plant Variety Protection Act. Its PVP has long since expired. This shiny crinkly looseleaf with fringed leaf margins is firm and crunchy in salads. Slow to bolt, but starts to get tough in the centers. We're putting this great classic back on the plate. ① **BACK!**

2714 ***A**: 1g, $3.00* ***B**: 4g, $7.00* ***C**: 14g, $11.50*
***D**: 28g, $18.00* ***E**: 112g, $58.00*

Tango - Organic (45 days) OP. For many commercial growers, Tango is the looseleaf of choice for overwintering and for productivity in cool weather. A frilly standard in salad mixes and mesclun adding loft and interesting texture. Deeply cut pointed leaves have pleasant flavor and no bitterness. Bolts readily in heat, so plant accordingly if you want it to grow to full maturity. ❄ ①②③

2791 ***A**: 1g, $3.25* ***B**: 4g, $6.65*
***C**: 14g, $13.50* ***D**: 28g, $22.00*

Salad Bowl (46 days) OP. Bright-green frilly notched leaves form lofty 12–14" compact rosette. Stands heat better than Black Seeded Simpson, but at its best in cool weather, not summer. 1952 AAS bred by Ross Thompson of the USDA. Has survived temps of 18° double-covered under row cover. ❄

Salad Bowl ②

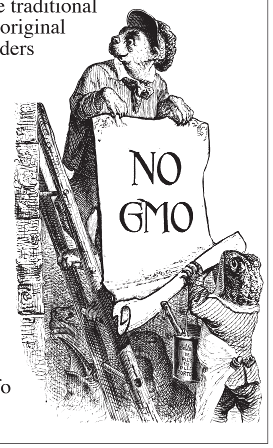
2722 ***A**: 1g, $2.25* ***B**: 4g, $3.50* ***C**: 14g, $4.25*
***D**: 28g, $6.25* ***E**: 112g, $10.25* ***K**: 448g, $25.00*
***L**: 2268g, $98.00*

Salad Bowl - Organic ③

2723 ***A**: 1g, $3.50* ***B**: 4g, $4.75* ***C**: 14g, $8.00*
***D**: 28g, $11.00* ***E**: 112g, $28.00*

"I wish my work to be shared, not monopolized."

–Lettuce breeder extraordinaire Frank Morton



Genetic engineering is not the only ethical issue in seed production. A new and disturbing trend in lettuce and flowers is the prevalence of trait- and utility-patented varieties. One of our competitors listed more than one third of its lettuce varieties as utility- or trait-patented. Another carries these varieties but does not label them. Utility patents stand the traditional rationale for variety protection on its head. The original reason advanced in its support was to offer breeders an economic incentive to develop new varieties for agricultural improvement. Utility patents, by extending ownership beyond individual varieties to their traits (such as heat tolerance and leaf color) that are found in nature, stultify any possible future breeding improvements by monopolizing those traits that rightfully belong to the commons, cutting off any opportunity for other breeders to work with them for about 20 years. Once traits are tied up in private hands, varietal improvement comes to a halt.

You will not find any trait- or utility-patented varieties in the Fedco catalog because such patents are against our ethics. Free the seed! Use seeds in the public domain and shun utility-patented varieties. For more info see pages 4 and 113. Also see Morton's essays found at wildgardenseed.com.

Pest and Disease Remedies for Lettuce:

Pest: Aster Leafhopper (vector for Aster Yellows disease)
- Cultural controls: control perennial broadleaf weeds near lettuce plantings, plow lettuce fields immediately after harvest.

Pest: Slug
- Cultural control: avoid mulch or nearby grassy areas.
- Material control: **8741-8744** Sluggo (p. 147)

Disease: Bottom Rot
- Cultural controls: rotate with grass-family green manures, plant in well-drained soil or on raised beds, more upright varieties escape infection.

Major diseases: Downy Mildew, Grey Mold, White Mold
- Cultural controls: rotation, reduce duration of leaf wetness, plant parallel to prevailing winds, use wide spacing, control weeds, use well-drained fields in spring and fall.
- Material controls: **8666** Milstop (p. 145)

more LOOSELEAF LETTUCE

Red Salad Bowl (46 days) OP. Compact frilly rosettes of spectacular bronze-red oakleaves. Red at tips and on young growth, green at the base of the leaves. Nice buttery flavor. One of our most popular lettuces. A staple mesclun ingredient. Grows quite large in cool weather, but prone to bitterness and bolting in heat. Withstood outdoor temperatures of 14° double-covered under row cover. Some warm-temperature germination tolerance. Introduced in 1955. Resists TB.

Red Salad Bowl ②④

2728 *A: 1g, $2.75*
B: 4g, $3.50
C: 14g, $4.50
D: 28g, $6.75
E: 112g, $11.00
K: 448g, $24.00

Red Salad Bowl - Organic
Improved stock features darker, more vibrant leaves and enhanced PM resistance. ②③

2729 *A: 1g, $3.25*
B: 4g, $4.25
C: 14g, $7.50
D: 28g, $11.75
E: 112g, $26.00
K: 448g, $84.00

Red Sails - Organic (49 days) OP. This 1985 AAS winner has become synonymous with red leaf lettuce. An attractive large plant with purplish red-splashed rosettes serrated with bubbled frills, Red Sails delivers lightly crunchy lobes with good melting texture. Ideal for home use and wholesale markets. Red Sails is slow to become bitter or bolt, even in heat. Reaches full size at 12–16", but can be harvested at 10" for a "one-cut" type head. Handle with care, as brittle midribs break easily during washing and packing. Highest rated of 13 lettuces for vigor in OSU trial. ①

2761 *A: 1g, $3.50* *B: 4g, $6.00* *C: 14g, $11.00*
D: 28g, $17.00 *E: 112g, $48.00*

Australian Yellow - Organic (50 days) OP. In our trial the opalescent yellow-green leaves showed rapid growth yet were still holding their quality on July 19 when Waldmann's had bolted. Glossy yellow in the early stages, seedlings become more green as they mature, with the crinkly quality of a spinach and a sweet taste augmented by the barest hint of bitter. Frank Morton's strain is the best we have found. An émigré from Down Under. ①

2766 *A: 1g, $3.75* *B: 4g, $7.50* *C: 14g, $14.75*
D: 28g, $26.00 *E: 112g, $78.00*

Hyper Red Rumple Waved - Organic (50 days) OP. If you are drawn to really deep red lettuces, consider Hyper Red. Selecting from a cross between Valeria, a very red cold-tolerant lollo rosso, and Wavy Red Cos, an undulating savoyed red romaine, Frank Morton bred Hyper to accentuate pigmentation and ruffling. The striking result tastes good with a pleasing texture. Holds for a while in July before succumbing to heat. Good cold tolerance. No warm-temperature germination tolerance. Resistant to X, SC, DM and TB. **Breeder Royalties. OSSI** ①

open source seed initiative

2773 *A: 1g, $4.00* *B: 4g, $9.00*
C: 14g, $17.50 *D: 28g, $27.00*

New Red Fire - Organic (51 days) OP. Fire has gained a well-deserved popularity with commercial growers. Has Sails' characteristic ruffled leaves, though slightly lighter coloration, and good size. Has been among the last to bolt, lasting as late as July 29. Also quite cold hardy. Tender sweet flavor with almost no bitterness. Resists BOR, DM, TB. ①

2775 *A: 1g, $3.50* *B: 4g, $6.75* *C: 14g, $14.50*
D: 28g, $20.00 *E: 112g, $55.00*

Saving Lettuce Seed Is Easy! Leave spring-planted lettuce heads to bolt. Flowers will become white tufted seeds. Once dry on stalk, rub seeds off the plant into a paper bag. To ensure true-to-type seed, separate lettuce varieties by 10 feet. See page 38 for more about seed saving.

Slobolt (53 days) OP. Slow early growth is the key to Slobolt's success as a summer lettuce. A 12–14" Grand Rapids–type, Slobolt often will hold well into July. Slobolt is versatile: one grower in NY reported good results growing it in winter under lights as well as tightly spaced in his summer garden. Introduced 1946 by USDA. Showed some ability to germinate in warm temperatures. ②

2783 *A: 1g, $3.25* *B: 4g, $5.25* *C: 14g, $10.00*
D: 28g, $17.25 *E: 112g, $50.00*

Red Tinged Winter - Organic (60 days) OP. A leaf lettuce for three seasons introduced by Beth and Nathan Corymb of Meadowlark Hearth who selected and multiplied it from heirloom seed they brought from Europe. The lofty loose 10–12" compact heads with slightly ruffled leaves are green in their centers and lightly tinged with bronze toward the leaf tips. Can be harvested at 8" for "one-cut" salad leaf. Red Tinged was a hardy survivor in Roberta Bailey's overwintering test, and Hildy Danforth of Shelburne, NH, said that "it was the best I've seen in my fall greenhouse and I've grown every lettuce with the word 'winter' in its name." Sow to mature in fall or late fall, or start in fall to overwinter and rally for major production in spring. Turns quite bitter in heat, so not for summer production. ❄ ①

2786 *A: 1g, $3.75* *B: 4g, $8.50* *C: 14g, $15.75*
D: 28g, $26.00 *E: 112g, $90.00*

Merlot - Organic (32 days baby, 60 mature) OP. William Woys Weaver correctly predicted that this lettuce would become a classic. Always a standout in our trials, its intense burgundy color the richest we have ever seen. This merlot adds as much to your baby salad mix as a good wine adds to your dinner, providing color, excitement and full-bodied flavor. Slow to grow, slow to bolt, plants never achieve much size or density, but are ideal for the baby-leaf trade. Not for mature-head production, so may be spaced closely. According to Mountain Dell Farms (growing at 1400' in the Catskills), can stand outside temperatures to 14° when double-covered. Has shown good resistance to bottom rot in challenging wet Julys. Germinates poorly in warm temperatures. Also resistant to X, DM, SC and TB. ❄ ①

2790 *A: 1g, $3.35* *B: 4g, $6.25* *C: 14g, $13.00*
D: 28g, $23.00 *E: 112g, $59.00* *K: 448g, $200.00*

De Morges Braun - Organic (64 days) OP. This bronze beauty is noteworthy among the hundreds of lettuces we've grown for its shimmery color and smooth buttery texture. Grows upright like a romaine as it matures, the center forming a green contrast to the pink outer leaves. Slow to bolt and rarely gets bitter. Decent as a summer lettuce, but also does well in spring and fall. Brought to our attention by lettuce curator M. Schultz. ①

2787 *A: 1g, $3.75* *B: 4g, $7.00* *C: 14g, $12.00*
D: 28g, $18.00 *E: 112g, $45.00*

OAKLEAF

A looseleaf lettuce more tender and sweet than its namesake.

Oscarde - Organic (30 days baby, 45 days mature) OP. This often imitated but never matched classic miniature oakleaf remains an industry standard. Deep red leaves are the darkest of their type we've found in our trials. Growing low to the ground, the loose heads shade to bright green at their hearts. Ideal for greenhouse culture in cold weather, also good outdoors in spring and fall. May be cut for mesclun or baby leaf. Resists DM. ❄ ① **BACK!**

2788 *A: 1g, $4.00*
B: 4g, $11.00
C: 14g, $27.50
D: 28g, $48.00

Bronze Beauty Arrowhead - Organic (46 days) OP. This Arrowhead scores a bullseye for form and color, developing a gorgeous oakleaf rosette in a dance of green and bronze. Introduced by the Germania Seed & Plant Co, this bronze was given a bronze medal by the AAS judges in 1947. Good for mesclun and cut-and-come-again culture. Very slow to bolt. ①

2720 *A: 1g, $3.50*
B: 4g, $7.25
C: 14g, $12.25
D: 28g, $19.75
E: 112g, $63.00

Antares - Organic (48 days) OP. A shimmery pink and bronze oakleaf growing vigorously to a magnificent 14–16" size. The extra-frilled finely cut bright leaves are colorful and tender, not bitter even in early July. Antares puts on a terrific show especially when started indoors, transplanted early in spring and allowed ample space. Bred by Frank Morton of Wild Garden Seed in Oregon out of a combination of **2722** Salad Bowl (p. 41) and **2865** Rouge d'Hiver (page 45). **Breeder Royalties. OSSI** ①

open source seed initiative

2738 *A: 1g, $3.50* *B: 4g, $7.50* *C: 14g, $13.75*
D: 28g, $25.00 *E: 112g, $72.00*

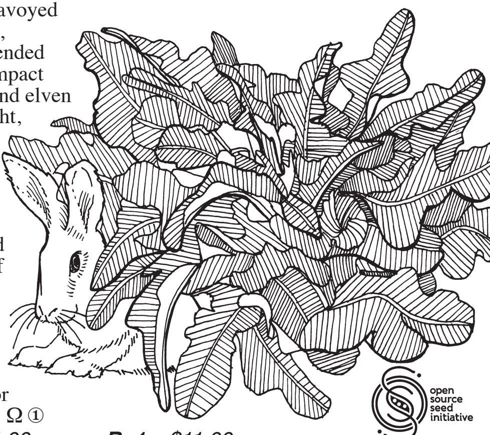
Blushed Butter Oaks - Organic (49 days) OP. This 1997 Fedco introduction developed by Frank Morton is a compact oakleaf butterhead. Its 12" mounded upright form sports a delightful combination of pink and green rounded oakleaves with tenderness and buttery taste. It's a hit with everyone who sees and samples it in our trials. Better-than-average frost tolerance. **Breeder Royalties. OSSI** ❧1997. ①

2764 A: 1g, $3.75 B: 4g, $6.75 C: 14g, $15.00
D: 28g, $28.00 E: 112g, $77.00

Camo Oakheart Gene Pool - Organic (55 days) OP. Bred in Oregon for organic conditions, this lettuce has made the jump from its colorful cameo appearance in our OG DeLuxe Lettuce Blend to a starring role in our lettuce lineup. The variations in this gene pool are something to behold, ranging from deepest solid red to the heart, through all stages of red spotting, speckling and blushing, to spotless green. Dense oakheart heads range from mini to full to elf-earred. Under Maestro Morton's orchestration, a deer tongue crossed with a red-to-heart romaine to produce a head with red spots and a bronze overcast. It was made "oakish" by a chance encounter with Green Oakheart. Not one to fade into the background, despite its name. Great for oakleaf salad diversity. **Breeder Royalties. OSSI** ① **NEW!**

2762 A: 1g, $3.75 B: 4g, $7.75 C: 14g, $12.00

Elf Ears Oak - Organic (50 days) OP. Frank Morton made Elf Ears Oak as small as the vigorous oakleaf-type lettuces will likely allow. The bright green leaf is lightly savoyed with deeply cut lobes, crowned in extra-extended narrow tips. With compact form, dense centers and elven oak leaves held upright, easy salad cutting or clean full-head presentation come naturally. In our hot and steamy 2018 lettuce trial, we found uniform Elf Ears' leaf sweet, tender and buttery, while full-size kin Italienischer is more crisp with slightly better heat tolerance. Selected for DM resistance. **OSSI** Ω ①



2763 A: 1g, $4.00 B: 4g, $11.00
C: 14g, $32.00 D: 28g, $51.00 E: 112g, $175.00

Lingua di Canarino (Canary Tongue) - Organic (50 days) OP. Lingua is a refined oakleaf that grows larger and stands longer than the original oakleaf without bolting or getting bitter. Mild-tasting light-green 8" rosettes. Performs well in fall. Originally from Europe. ①

2768 A: 1g, $4.00 B: 4g, $8.00 C: 14g, $15.00
D: 28g, $20.00 E: 112g, $50.00

Merlox Red Oak - Organic (53 days) OP. Frank Morton's first release of his "Merlox variations" combines the ultra-dark pigmentation of **2790** Merlot with the superior flavor of larger Emerald Oak. This uniform compact 10– 12" oakleaf head boasts showy deep maroon leaves with a hint of blanched green in their centers. Loose but upright habit makes for clean cutting in salad-leaf harvest. Known as a cool-season lettuce, yet in the dry early heat of summer 2018 we found no bitterness at all—unique for such bold coloration. Good for winter culture as well: left outdoors in central Maine with no row cover, mulched only by a generous snow cover, two-thirds overwintered and were ready to eat in early May. Bred with strong horizontal resistance to DM and SC. **Breeder Royalties. OSSI** ❆ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Flashy Green Butter Oak - Organic (54 days) OP. Frank Morton officiated the spectacular marriage of Emerald Oaks' quintessential oakleaf form with the speckling of Flashy Trout Back. The result's rich lime-green leaves with pronounced but variable dark speckles are not only winsome but also amazingly tasty and crunchy with delightful buttery texture. Flashy's compact habit lends it to "mini" culture, and its excellent performance in cool weather and heat confirms its status as masterpiece. Best harvested by summer solstice. **Breeder Royalties. OSSI** ①

2784 A: 1g, $4.00 B: 4g, $8.00 C: 14g, $15.00
D: 28g, $24.00 E: 112g, $71.00

Italienischer - Organic (55 days) OP. An excellent heat-tolerant summer lettuce. More vigorous than Royal Oakleaf with bigger outer leaves, a better taste and texture, and less bitterness. Good, juicy, crisp and mild-flavored. Upright sturdy 14–16" bright green plants are slow to bolt. Give these huge beauties plenty of space. Some is black-seeded, some white-seeded, both true-to-type, though some plants will exhibit more of a buttercrunch leaf in a different shade of green. ①

2785 A: 1g, $3.50 B: 4g, $8.00 C: 14g, $14.00
D: 28g, $21.00 E: 112g, $72.00

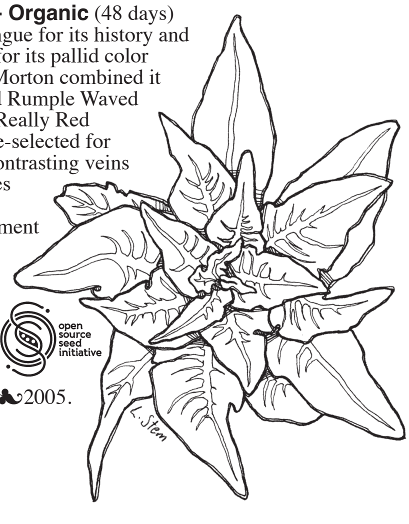
DEER TONGUE

Deer tongue leaf lettuce has broad dense succulent leaves which taper to a point.

Green Deer Tongue - Organic (48 days) OP. Also known as Matchless, this venerable heirloom goes back to the 1740s. Characteristic thick green pointed leaves radiating from a compact center. Slow to bolt. Has a rich nutty flavor that doesn't turn bitter. ①

2740 A: 1g, $3.00 B: 4g, $6.25 C: 14g, $11.00
D: 28g, $16.50 E: 112g, $54.00

Really Red Deer Tongue - Organic (48 days) OP. We revered Red Deer Tongue for its history and its classic leaf shape, but not for its pallid color and vulnerability to disease. Morton combined it with his own **2773** Hyper Red Rumple Waved (p. 42) to develop a series of Really Red breeding lines. Morton then re-selected for deep red color, white-green contrasting veins and pointed deer-tongue leaves for a variety with much less variation, a stunning improvement over the original Red Deer Tongue. From Hyper comes heightened resistance to SC, DM, X and TB. Though not among the best summer lettuces, RRDT stands heat better than its forebears and does not bolt as readily. ❧2005. **Breeder Royalties. OSSI** ①



2744 A: 1g, $3.50
B: 4g, $7.50
C: 14g, $13.00
D: 28g, $21.00
E: 112g, $73.00

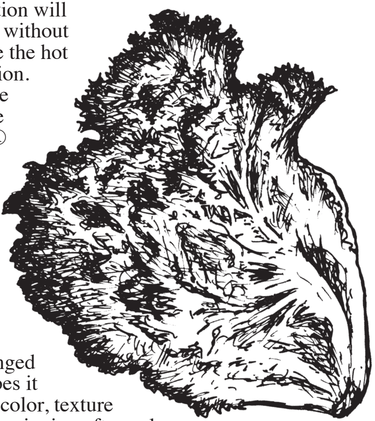
Les Oreilles du Diable (Devil's Ears) - Organic (50 days) OP. Starlike rosettes of tasty glossy leaves are deeply tinged with burgundy for a shimmery appearance. We enjoy its nutty texture and bitter-free flavor. One of the last to bolt. A standout in our plots where we greatly preferred it to Red Deer Tongue for its color and good heat tolerance. One of the lovely rare treasures once maintained by the Abundant Life Seed Foundation. ①

2767 A: 1g, $3.75 B: 4g, $7.00
C: 14g, $11.00 D: 28g, $19.00

LOLLO ROSSO

Forms a fully frizzy tight mound of leaves that lend loft and flair to mixes.

Revolution - Organic (48 days) OP. As rich a red lollo rosso as anyone could want. Enjoy its 10–12" deeply frilled thick crunchy intensely colored leaves. Once planted, this Revolution will be live—holding a very long time without developing much bitterness before the hot summer sun brings about its reaction. Before then, as any defender of the status quo will tell you: to stop the Revolution, you cut off its head. ①



2792 A: 1g, $4.15
B: 4g, $8.75
C: 14g, $17.00
D: 28g, $26.00
E: 112g, $57.00

Dark Lollo Rosso - Organic (53 days) OP. A much darker version of **2796** Lollo Rosso, holding its color even under row covers, in tunnels or during prolonged cloudy periods. Our trialer describes it as "fat, curly and very red." Adds color, texture and loft to baby leaf mixes. Begin snipping after only four weeks. Develops bitterness if allowed to size up in heat. ②

2793 A: 1g, $3.50 B: 4g, $6.00 C: 14g, $10.75
D: 28g, $16.50 E: 112g, $44.00

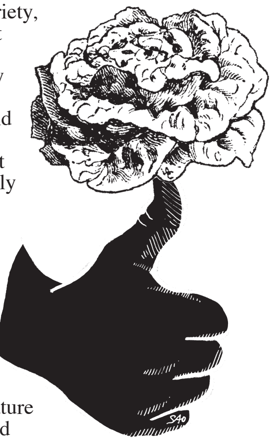
Lollo di Vino - Organic (56 days) OP. Its originator Frank Morton calls it a "distinctive little frizzlehead." Di Vino stands out for its dark purple color that originated in its **2790** Merlot parentage. This compact beauty has ruffles and curls of vintage lollo, but a mildness uncharacteristic of deeply pigmented lollos. Its distinctive lack of bitterness allows the harvest to extend longer into summer than any other dark lollos we have tried. **Breeder Royalties. OSSI** ①

2795 A: 1g, $4.00 B: 4g, $8.75 C: 14g, $21.00

Lollo Rosso (58 days) OP. For loft and texture, used in salad mixes and as a garnish, this ornamental delight has been embraced by gourmet restaurants. Frizzy foliage is light red on top, light green at base, melding into an eye-catching display. Very cold hardy. This strain is not as colorful as the other lollos in our trials, but it was milder, less bitter and slower to bolt. ❆ ③

2796 A: 1g, $3.75 B: 4g, $5.00 C: 14g, $8.60
D: 28g, $13.00 E: 112g, $34.00

BUTTERHEAD



Tom Thumb (46 days) OP. This venerable and adored miniature butterhead was introduced in England by H. Wheeler & Sons in 1858. It came to the States ten years later. One customer wrote to Burpee's in 1894, "It is just what the gardener wants…a good dwarf variety, a quick grower." Former Fedco staffer Heron called it "fairy cabbage." In the dewy cool of spring or fall, Tom Thumb forms its extra-early tightly bunched tiny head. With sweet buttery light-medium green outer leaves and creamy white crunchy centers, it's tasty and attractive for early markets. Can be closely spaced as the heads seldom exceed 5" in diameter. Please do not attempt to grow it in warm temps—it turns into an ugly toad! ②④

2803 ***A****: 1g, $3.00* ***B****: 4g, $3.50*
C*: 14g, $4.50* ***D****: 28g, $6.50*
E*: 112g, $9.75* ***K****: 448g, $23.00*

Bronze Mignonette (46 days) OP. Charming us again in 2021, this small 8" ruffled bronze-tinged butterhead continues to captivate in our trials. Slightly larger than Tom Thumb and with a broader tolerance of warm temps—does not get bitter in heat. Buttery, juicy and crisp with a petite stature to fit into your garden and your salad bowl. Introduced around 1898. ②

2805 ***A****: 1g, $3.00* ***B****: 4g, $3.50* ***C****: 14g, $4.50*
D*: 28g, $6.25* ***E****: 112g, $10.25* ***K****: 448g, $27.00*

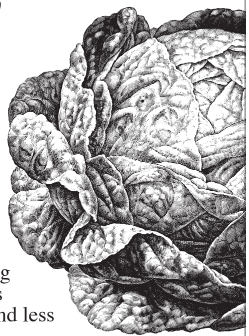
Garnet Butter Gem (48 days) OP. Frank Morton selected this gem and named it well, its pebbled leaves shaded red and light plum with touches of brown on a green base. Sweet, crunchy, with buttery goodness, a very fulfilling balance. The compact (12" wide by 9" tall) tight uniform heads form gorgeous rosettes held upright for a clean market and salad harvest. Garnet Butter Gem is as sweet as the well-regarded **2834** Sweet Valentine with even better bolt tolerance, and heads that hold and tighten. In our summer 2017 trials, the commercial grade Gem-types melted down or got wicked shaggy whilst Garnet Butter appeared to ask, "What's all the fuss about? Just a spot of odd summer weather, wot!"

Garnet Butter Gem - ECO Breeder Royalties. ①

2806 ***A****: 1g, $4.00* ***B****: 4g, $10.00* ***C****: 14g, $21.00*
D*: 28g, $30.00* ***E****: 112g, $80.00*

Garnet Butter Gem - Organic Ω ①

2807 ***A****: 1g, $4.50* ***B****: 4g, $13.00* ***C****: 14g, $25.00*
D*: 28g, $42.00* ***E****: 112g, $125.00*



Carmona - Organic (50 days) OP. Also known as Carmona Red or Carmona Red Tip. Frank Morton brought this Canadian heirloom red butterhead back from near extinction. Lush dark green butterhead base is fully blushed carmine and pebbled with bronze and brown. Stunning, but the taste is what will keep you coming back. Outer leaves are sweet, juicy and buttery while the well-blanched interior is tender and melting. Heads mature slowly and tighten just after color-mate **2828** Pirat. Broad 16" plants mound to a 6" center head. Good disease resistance and of market-grower quality; showed long field holding and excellent bolt resistance in tortuous 2018. We observed one in six plants is more blond and less red, but wonderful nonetheless. ① **BACK!**

2809 ***A****: 1g, $3.50* ***B****: 4g, $6.75* ***C****: 14g, $13.50*
D*: 28g, $19.00* ***E****: 112g, $60.00*

Buttercrunch (50 days) OP. Our trials evaluator called this 8–12" butterhead "the cucumber of lettuce, smooth and soothing with a green refreshing flavor." Dark green outer leaves with creamy center heart. Lisa Bloodnick praises its "sweet, succulent broad mid-ribs." Slow to bolt, but can be prone to bottom rot. Some ability to germinate in warm temps. 1963 AAS.

Buttercrunch ④

2811 ***A****: 1g, $2.75* ***B****: 4g, $3.30* ***C****: 14g, $4.55*
D*: 28g, $6.65* ***E****: 112g, $10.35* ***K****: 448g, $25.00*

Buttercrunch - Organic ①

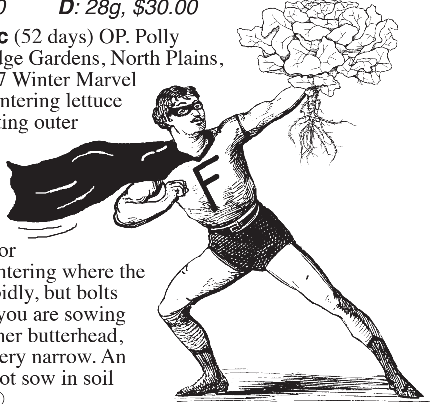
2812 ***A****: 1g, $4.00* ***B****: 4g, $6.75* ***C****: 14g, $13.00*
D*: 28g, $20.00* ***E****: 112g, $65.00*

North Pole - Organic (51 days) OP. We don't wait for Santa Claus to deliver the goods—we have a seed grower out west producing this popular extremely cold-hardy butterhead for us. Protected only by snow cover, all of Donna Dyrek's plants survived a mild Zone 4 Maine winter outdoors, but as snowfall becomes less reliable, we recommend providing other winter protection. Can be set out under cover 2–3 weeks before first frost to aim for 4–6" plants at the onset of winter weather. Will resume vigorous growth as days grow longer, tolerating spring frosts. Elegant lime-green 6–8" buttery heads, sweet and tasty. Not for summer—it will bolt and turn bitter, but suited for other seasons. ❄ ①

2814 ***A****: 1g, $3.50* ***B****: 4g, $7.75* ***C****: 14g, $17.00*
D*: 28g, $29.00* ***E****: 112g, $105.00*

Optima - Organic (52 days) OP. This dark green uniform Nancy-type butterhead caught lettuce master Frank Morton's eye with its large plant and head size, and workhorse performance. We were equally wowed as slow-bolting Optima held its lush looks and high quality in 2018's hot and steamy lettuce trial. It continues to perform consistently well for us in heat and stress. Optima's juicy sweetness and silky texture could truly define a new category: Tenderheads! Released by French seedhouse and breeder Vilmorin in 1995. High resistance to DM, BR, and TB. ① **BACK!**

2815 ***A****: 1g, $3.75* ***B****: 4g, $7.75*
C*: 14g, $21.00* ***D****: 28g, $30.00*



Winter Marvel - Organic (52 days) OP. Polly Gottesman of Pumpkin Ridge Gardens, North Plains, OR, wrote, "Here in Zone 7 Winter Marvel is bar-none the best overwintering lettuce we grow…We start harvesting outer leaves for salad mix in December…they continue producing without bolting through March." A large fancy light green butterhead recommended for fall production and overwintering where the climate permits. Grows rapidly, but bolts readily in summer heat. If you are sowing in spring for an early summer butterhead, the harvesting window is very narrow. An old European variety. Do not sow in soil temperatures over 80°. ❄ ①

2816 ***A****: 1g, $3.50* ***B****: 4g, $7.00* ***C****: 14g, $10.25*
D*: 28g, $16.00* ***E****: 112g, $55.00*

Pirat - Organic (55 days) OP. From Germany, also known as Sprenkel and Brauner Trotzkopf. Elegant green 12" butterhead with light brown pebbling. Heads like loose large softballs at maturity. Delicious smooth taste with creamy texture, and holds well in heat but not in prolonged wet spells. Descended from Merveille des Quatre Saisons and is much more bolt resistant. ①

2828 ***A****: 1g, $3.65* ***B****: 4g, $9.25* ***C****: 14g, $13.75*
D*: 28g, $26.00* ***E****: 112g, $93.00*

Speckled Amish - Organic (55 days) OP. An ornamental bibb of spectacular beauty, its apple-green leaves are variably splashed with maroon flecks, a stunner whether in your garden or in your salad. Small firm mild-flavored 10" heads shaped like Merveille des Quatre Saisons, centers with soft leaves blanching creamy yellow. Mennonites brought seed in a covered wagon from Lancaster County, PA, to Ontario in 1799. Introduced into commerce in 1880 as Golden Spotted. Frank Morton has been selecting to alleviate tipburn. ①

2831 ***A****: 1g, $3.25* ***B****: 4g, $7.50* ***C****: 14g, $14.00*
D*: 28g, $23.00* ***E****: 112g, $71.00*

Sweet Valentine - Organic (56 days) OP. A real sweetheart of a lettuce, Valentine combines magnificent beauty with mild sweet taste. Beginning as a large spreading bronzed butterhead with rounded veined leaves, it matures into a romaine shape. Has been very slow to bolt even in hot dry conditions. Flavor is more delicate and less bitter before it assumes romaine configuration. ①

2834 ***A****: 1g, $3.75* ***B****: 4g, $7.25*
C*: 14g, $13.50* ***D****: 28g, $20.00*

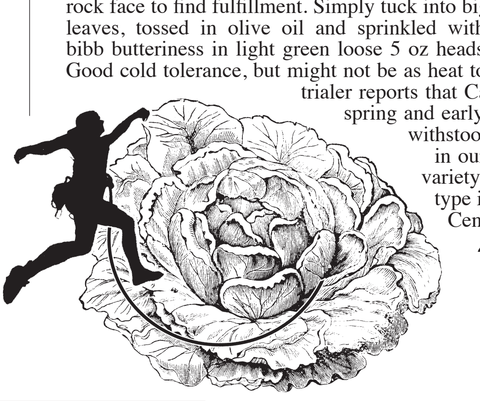
Nancy - Organic (58 days) *Not available. Crop failure due to wildfires.*

Kagraner Sommer (58 days) OP. Elegant light green 10–12" butterhead of exceptional tender succulence, especially given the warm early-to-mid July slot when it matures. "For years has been our main summer lettuce. A great heat resister," lauded Anne Elder. The satiny heads are wound less tight, but are lusher in flavor than Buttercrunch. In our trials, the secret snackers always wish we had planted just a few more. ②

2839 ***A****: 1g, $2.75* ***B****: 4g, $3.30* ***C****: 14g, $5.85*
D*: 28g, $9.00* ***E****: 112g, $19.50*

Capitan - Organic (62 days) OP. You don't have to free climb a 3000' rock face to find fulfillment. Simply tuck into big bowl of torn tender lettuce leaves, tossed in olive oil and sprinkled with flaky sea salt. Luxurious bibb butteriness in light green loose 5 oz heads, similar in habit to Nancy. Good cold tolerance, but might not be as heat tolerant as we expected—our trialer reports that Capitan flagged in 2021's hot spring and early summer. Resists LMV and withstood white rot better than others in our grower's field. This Dutch variety was judged the best Boston-type in the 1983 Rodale Research Center trials. ① **BACK!**

2842 ***A****: 1g, $3.00*
B*: 4g, $7.50*
C*: 14g, $17.00*
D*: 28g, $27.00*



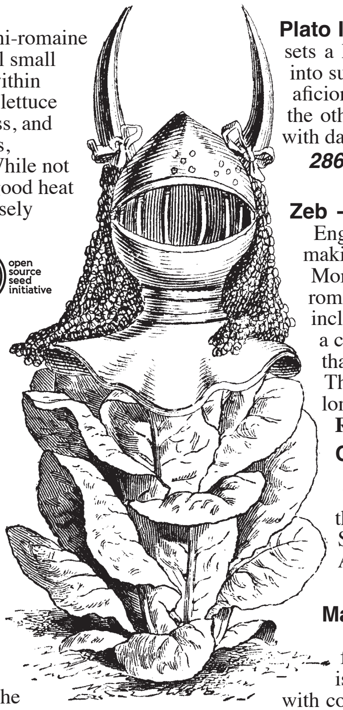
ROMAINE

Also called Cos. Large crisp-stemmed leaves wrap into a tall head with buttery but snapping blanched centers. Great performance in cold and heat.

Pandero - Organic (44 days baby, 63 days mature) OP. The mini-romaine runaway star of 32 lettuce varieties in CR's 2013 trial, this very deep purple version of a compact Winter Density–type develops pronounced color early and keeps it through its entire growth cycle. Our taste tasters rated it sweet, mild and juicy with good crunch. Best sowed early and harvested small for salad mix or baby romaine because it will bolt in heat. Planting for fall allows it to mature its striking self-contained 6" head. Cold-tolerant, suffered only sparse BOR during recent wet Junes. **Breeder Royalties.** ①

2852 ***A***: *1g, $4.25* ***B***: *4g, $11.00*
C: *14g, $23.50* ***D***: *28g, $39.00*

Blushed Butter Cos - Organic (49 days) OP. A combination butterhead-romaine with ruffled savoyed leaves dappled in an attractive palette of reds and greens. Butter Cos was judged to be #1 for taste out of more than 100 lettuces the first time we tried it, years ago. Remarkably crisp for such a buttery taste. **Breeder Royalties. OSSI** ☙1997. ①③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*



Jadeite - Organic (50 days) OP. True to name, mini-romaine Jadeite's matte apple-green rounded leaf and graceful small vase form looks carved. It practically glowed from within with pristine health through our hot and humid 2018 lettuce trial. With a delicate crunch, a dash of juicy sweetness, and touch of buttery texture to the blanched yellow hearts, Jadeite's small stature yields artisan-quality flavor. While not as furnace-proof as full-sized romaines, Jadeite has good heat tolerance and very good cold hardiness, allowing closely spaced successions through many seasons. Another treasure from breeder Frank Morton. **Breeder Royalties. OSSI** ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Mayan Jaguar - Organic (51 days) OP. Although we've grown a lot of trendy splotched lettuces in the last decade, this cat's mottled maroon spots on dark green ruffled leaves win the blue ribbon for most vibrant color definition. And it has great flavor, too, sweet juicy veins, blushed pink hearts and what breeder Frank Morton refers to as "that bone crusher romaine crunch!" It gets off to such a quick start, yet doesn't grow very large or thrive in intense heat, making Jaguar a great candidate for early salad or mesclun. Fierce colors, snarly crunch, but really a pussycat at heart. **Breeder Royalties. OSSI** ①

2856 ***A***: *1g, $4.75* ***B***: *4g, $12.25*
C: *14g, $26.50* ***D***: *28g, $46.00*

Forellenschluss (56 days) OP. Also known as Freckles or Trout Back, an heirloom from Arche Noah. An absolutely gorgeous romaine with the delicate taste and texture of a butterhead, distinguished for its deep green leaves flecked with wine-red splotches. The best-tasting of the 50 lettuces in our 1998 trial. Very buttery tender leaves may be harvested at 4–6" for mesclun or allowed to grow full size for maximum ornamental benefit. William Woys Weaver traced Forellenschluss back to 1793; it was a dwarf variety of Spotted Aleppo developed in Germany. More upright and cup-shaped than **2831** Speckled Amish (p. 44), with better heat tolerance. Some warm-temperature germination tolerance. We've been seeing increasing variation in the color and splotching, so we are offering two strains, **Routine** and **Ritzy**.

Forellenschluss Routine ②

2857 ***A***: *1g, $2.95* ***B***: *4g, $5.15* ***C***: *14g, $9.50*
D: *28g, $14.00* ***E***: *112g, $26.00*

Forellenschluss Ritzy - Organic Selected back toward its original color contrast! ①

2858 ***A***: *1g, $5.50* ***B***: *4g, $13.00*
C: *14g, $24.00* ***D***: *28g, $36.00*

Winter Density (60 days) OP. Also known as Craquerelle du Midi, a French heirloom from the 19th c. Is it a bibb or a romaine? Any way you look at it, its thick tender dark green leaves make superb eating. Starts out looking like a bibb, then wrapper leaves fold tightly, forming a head like a romaine when mature. Combines the substance of romaine with the tender succulence of bibb. No warm-temperature germination tolerance. ❆ ②

2849 ***A***: *1g, $3.00* ***B***: *4g, $4.50* ***C***: *14g, $6.00*
D: *28g, $8.50* ***E***: *112g, $14.50* ***K***: *448g, $37.00*

Jericho - Organic (60 days) OP. The classic summer romaine for warm regions. If the walls are tumbling down on your summer lettuce, try Jericho, bred in Israel's hot dry climate. Imposing, under fertile conditions it can grow dense hefty 2' tall heads of light green sword-shaped upright leaves. Yet it remains crisp, juicy and unusually sweet, most years resisting TB or bolting well into July. Remains attractive even in bad years and tolerates BOR. ①

2861 ***A***: *1g, $3.25* ***B***: *4g, $6.50* ***C***: *14g, $12.25*
D: *28g, $20.50* ***E***: *112g, $56.50*

Better Devil - Organic (60 days) OP. A really superior romaine lettuce from breeder Frank Morton. When it romaines, it sends up gorgeous purple ruffled center flag leaves. Its large veins, green tinged with purple, are crunchy, juicy and sweet with a hint of bitterness. The texture of its tapered cos-like leaves is chewy and pleasant. Recommended for early spring planting; resisted BOR and showed a moderate ability to withstand heat. Plants compact, uniform and dazzling even when crowded. **Breeder Royalties. OSSI ① BACK!**

2862 ***A***: *1g, $3.25* ***B***: *4g, $8.00*
C: *14g, $15.50* ***D***: *28g, $27.75*

Rouge d'Hiver (65 days) OP. The true Rouge d'Hiver, black-seeded, with much deeper red outer-leaf coloration than Brune d'Hiver with which it is sometimes confused. Inner leaves are green with deeply bronzed tip, an attractive color combination. Forms a semi-open romaine head with excellent flavor, especially in cold weather. Develops pronounced bitterness in summer heat. *Hiver* means 'winter' and Rouge is more suitable for fall production or overwintering than for summer. French 1840s heirloom listed by Vilmorin in 1885. Resists TB. ❆ ②

2865 ***A***: *1g, $2.75* ***B***: *4g, $3.25* ***C***: *14g, $4.50*
D: *28g, $6.50* ***E***: *112g, $11.00* ***K***: *448g, $30.00*

Plato II - Organic (65 days) OP. A lettuce fit for a philosopher-king, Plato sets a high standard for sweet taste in a romaine, holding its quality well into summer without bitterness, bolting or any tendency to tipburn. Lettuce aficionado Morton also found it more resistant to DM and SC than any of the other green romaines in his plot. Attractive 10" heads stay fairly open with dark green slightly ruffled heavily veined leaves. ①

2866 ***A***: *1g, $4.00* ***B***: *4g, $7.50* ***C***: *14g, $14.00*
D: *28g, $24.00* ***E***: *112g, $58.00*

Zeb - ECO (65 days) OP. One manifestation of climate change in New England seems to be increasingly hot dry springs and early summers, making good head lettuce trickier to grow. Fedco and breeders like Frank Morton are facing these challenges by introducing varieties like Zeb, a romaine with knock-out heat and stress tolerance during four trial seasons, including scorching June 2021. Cos romaine types have entire leaves with a crisp texture. Zeb has a tall bullet romaine head, with well-closed tops that make very tight savoyed hearts, crisp, juicy and sweet. The heat performance, texture and flavor has made this our long-time trial grower Donna's favorite lettuce. **Breeder Royalties. OSSI** *Check our website for availability.*

Olga - Organic (66 days) OP. Elegant lime-green Olga wooed us in our 2006 lettuce trials. Big upright 8" oval heads with big hearts, big flavor and slightly fringed leaves. So sweet, crisp and buttery that Morton thinks she must have some butterhead in her background. Stood considerable heat before developing slight TB and bitterness in August. ①

2874 ***A***: *1g, $3.50* ***B***: *4g, $7.25* ***C***: *14g, $15.50*

Marshall - ECO (67 days) OP. We first discovered Marshall in the Territorial catalog: "Gazing into the heart of this romaine is like falling into a burgundy abyss." As Merlot is to looseleafs so Marshall is to romaines, the standard for color intensity. Deep dark red leaves with contrasting pink veins, and a smidgen of light green in the center. Tall upright 8" heads. Leaves smooth and succulent, crisp and chewy, lacking the bitterness usually associated with such coloration. Ornamental and delectable. *Check our website for availability.*

Parris Island Cos (68 days) OP. The standard market romaine developed by Clemson University and the USDA in 1952. Upright 8–9" heads fold inward to form compact centers. Interior greenish-white. Resistant to TB and bolting, even in heat. Irrigation improves its texture. ④

2879 ***A***: *1g, $3.00* ***B***: *4g, $3.75* ***C***: *14g, $5.00*
D: *28g, $7.00* ***E***: *112g, $11.00* ***K***: *448g, $25.00*

Crisp Mint (70 days) OP. Also known as Erthel. Named for its ruffled mint-leaf appearance, not for any minty flavor. Good size, exceptional crispness and sweet flavor with little bitterness even in mid-July. This long-standing dark green romaine with an open habit and a rounded top was a standout two consecutive years. Notes from CR's original trial in 1999: "Lovely and delicious, crisp and sweet. Nice size, ruffled leaves, GET THIS!!" It's still a winner in our recent trials. Slow to bolt, though some tendency to TB in July heat.

Crisp Mint ②

2882 ***A***: *1g, $2.75* ***B***: *4g, $5.75* ***C***: *14g, $11.00*
D: *28g, $15.00* ***E***: *112g, $32.00*

Crisp Mint - Organic ② **BACK!**

2883 ***A***: *1g, $3.00* ***B***: *4g, $6.75* ***C***: *14g, $13.50*
D: *28g, $21.00* ***E***: *112g, $70.00*

Winter Wonderland - Organic (70 days) OP. Did you say *wintah*? Here in Maine we really appreciate a lettuce that makes it through the rigors. Winter Wonderland was one of the lettuces to survive Roberta's over-wintering test. Full disclosure: that winter was not the harshest we've known. A 2' tall erect romaine with dark green leaves and a spread of about 1', Wonderland is slow to bolt in heat but we recommend it for farming the dark side of the calendar. White seed. ❆ ①

2886 ***A***: *1g, $3.25* ***B***: *4g, $6.75*
C: *14g, $11.50* ***D***: *28g, $18.25*

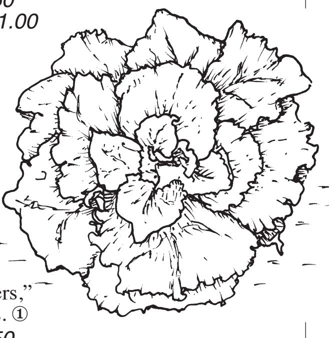
BATAVIAN

Also called **Summer Crisp** or **French Crisp**, Batavians combine the crispness and heat tolerance of Iceberg with the open habit, sweetness and tenderness of leaf types. Vigorous growth, large stature, great field holding, slow bolting and wonderful flavor make this class an excellent summer harvest choice in the fluctuant northeastern climate. Good hot-weather germination.

Cardinale - Organic (48 days) OP. This alluring wine-red European batavian had disappeared from commerce for a while before Frank Morton rescued it. Cardinale is a classic both for baby leaf and hefty 14–16" full head production. With elements of butterhead and romaine in habit and flavor, upright but open rosettes fold together like a romaine in the center at full maturity. Shiny broad lightly blistered fringed red leaves on the outside, green toward the center with crisp and juicy ribs. Survived temperatures in the teens in Janine Welsby's unheated Ohio greenhouse under a double layer of row cover topped with old bed sheets. **Breeder Royalties. OSSI** ①

2905 ***A**: 1g, $3.75* ***B**: 4g, $7.50*
***C**: 14g, $18.00* ***D**: 28g, $31.00*

Sierra - Organic (50 days) *Not available in 2024. Crop failure due to wildfires.*



Concept - Organic (51 days) OP. The Concept here is a combination of a batavian with a romaine. As the plant reaches full maturity, the whorling thick succulent juicy medium-green leaves start to close up at the top. Can be used for baby lettuce or allowed to mature into a vase-like bunch. As with most batavian types, it is relatively tolerant of hot weather and rarely bitter. "Concept is the only lettuce I can be sure of in Florida summers," relates Marilynn Marcks of Port St. Lucie, FL. ①

2908 ***A**: 1g, $3.50* ***B**: 4g, $8.50*
***C**: 14g, $17.50* ***D**: 28g, $28.00*

Brune d'Hiver - Organic (65 days) OP. A few years ago we singled Brune out from our winter mix, where it had mingled for years. Standing alone in our trial gardens, the burnished shine of its reddish-amber–tipped green leaves captivated us. A French heirloom, introduced in 1855, the compact hardy plants with crunchy batavian taste stand the test of time as well as the chill of fall. Pam Dowling notes this variety as worthy of consideration for its cold hardiness. ❄ ①③

2840 ***A**: 1g, $3.00* ***B**: 4g, $7.15* ***C**: 14g, $16.50*
***D**: 28g, $26.75* ***E**: 112g, $78.25*

Pablo - Organic (68 days) OP. Pablo bears a superficial resemblance to a red iceberg, but is a batavian, not a crisphead. Its larger plants form loose heads of beautiful upright rosettes surrounded by wide wavy-edged flat leaves. Bronze coloration on the outside leaves contrasts strongly with the green interiors lending a striking metallic sheen. Very sweet and mild with some bitterness in the ribs, slow-growing and extremely heat resistant. Always one of the last five to bolt in our trials and sweet to the bitter end. Lovely enough to stand as an ornamental, but also one of the best-tasting. ①

2918 ***A**: 1g, $4.25* ***B**: 4g, $8.75* ***C**: 14g, $20.00*
***D**: 28g, $29.00* ***E**: 112g, $87.00*

Anuenue - Organic (72 days) OP. Its mellifluous Hawaiian name (pronounced AH-new-ee-new-ee) means 'rainbow' even though it is a uniform dark green. Anuenue doesn't look like much in June when most other lettuce is in full glory, but as the days get shorter and the heat gets stronger it really comes into its own. In late July and even early August, this 1987 University of Hawaii introduction has no peers for crispness and sweetness and never develops any bitterness. Slow growth is its secret. It remains compact as it matures, surrounding its round tightly packed heart with crisp outer leaves. About a quarter of the plants show an even more compact form. Unlike most lettuces, seed will germinate at 80°. Has shown some winter hardiness with protection. ①

2921 ***A**: 1g, $3.75* ***B**: 4g, $7.25* ***C**: 14g, $15.50*
***D**: 28g, $21.00* ***E**: 112g, $75.00*

ICEBERG or CRISPHEAD

According to Vaughan's 1904 seed catalog, Iceberg takes its name from the small indentations in the leaf that fill with dewdrops giving them a crystalline appearance. With its toothed and fringed light green leaf, famous crunchy juicy texture and mild sweet flavor, Iceberg has become an iconic American food. Late to make mature heads, Icebergs face heat and stress with grace and tolerance—lettuce lessons for our politicians?

Gildenstern - Organic (46 days) OP. A mini-iceberg—let us call it a bergy bit. Folded and blistered light green leaves wrap into a tight crisp whorled 4" head that easily makes a single-serving salad. This victory from breeder Frank Morton's Merlox derivations combines an iceberg look and juicy crunch with wonderfully smooth butterhead texture. Market growers will find uniformly early maturing but slow-bolting, but gets bitter in heat. Best for spring and fall. Resistant to TB, DM and SC around the calendar. *Our latest lot of seed may contain purple off-types*. **Breeder Royalties. OSSI** ①

2713 ***A**: 1g, $4.25* ***B**: 4g, $10.00*

Red Iceberg - Organic (63 days) OP. For burgundy exterior coloration, compact medium-sized heads, great reliability and pleasing sweet flavor, an attractive alternative to green iceberg. Interior shades to green. Heads resist getting soft and mushy in the heat for a relatively long time. ①

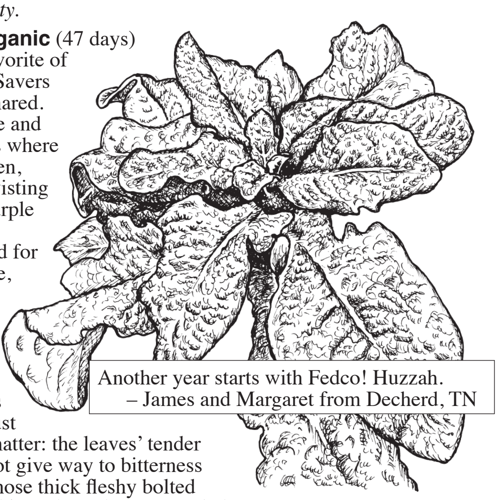
2923 ***A**: 1g, $4.25* ***B**: 4g, $9.00*
***C**: 14g, $18.00* ***D**: 28g, $29.00*

Crispino - Organic (60-65 days) OP. Lettuce master Frank Morton said, "Ozzie and Harriet salad of my youth is making a comeback, and this is the backbone for it." This old-school iceberg gets right to business making 6–7" light green icy heads with nearly white hearts. The lightly toothed and wavy leaves wrap early on a big vigorous 15–20" diameter plant, delivering a classic medium-crisp kick paired with tender juicy refreshment. In our hot humid 2018 lettuce trial, Crispino was uniform and blemish-free, holding well without tip-burn. ①

2924 ***A**: 1g, $4.25* ***B**: 4g, $11.00* ***C**: 14g, $23.00*
***D**: 28g, $40.00* ***E**: 112g, $120.00*

SPECIALTY LETTUCE

Balady Aswan - Organic (45 days) OP. An ancient form of native Egyptian celtuce that is customarily allowed to bolt and enjoyed for its 12–14" crunchy stems with creamy flavor. Its sweet emerald-green pointy leaves make a tall rosette, taste like regular lettuce leaves without bitterness and can be harvested anytime, remaining sweet and crispy like **2731** Cracoviensis even after bolting. Aswan began bolting only 3–4 weeks after its June 17 transplanting. Frank Morton says celtuce was a symbol of virility in ancient hieroglyphs but we make no unsubstantiated claims for this unusual lettuce. *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*



Another year starts with Fedco! Huzzah.
– James and Margaret from Decherd, TN

Cracoviensis - Organic (47 days) OP. CR's absolute favorite of all the lettuces Seed Savers curator M. Schultz shared. Distinct in size, shape and color, Cracoviensis is where the red meets the green, making a dazzling twisting rosette with heavy purple accents towards the center. Recommended for spring and fall culture, the plants grow fast and very large (14–16") in cool temps. Called "Bolt-o-viensis" by Scott Paquin, it sends up seed stalks with just a touch of heat. No matter: the leaves' tender buttery flavor does not give way to bitterness even after bolting! Those thick fleshy bolted stems are prized in China where they are peeled and eaten like asparagus. Listed as a distinct type, Asparagus Lettuce, in *The Vegetable Garden* by Vilmorin-Andrieux (1885). Customers in NJ and MA have reported success overwintering it. ❦1996. ①

2731 ***A**: 1g, $3.75* ***B**: 4g, $7.50* ***C**: 14g, $24.00*
***D**: 28g, $35.00* ***E**: 112g, $130.00*

Mâche: see Greens, page 34.

MELONS & WATERMELONS

- About 25–35 seeds/g; watermelons about 20 seeds/g; exceptions noted.
- Days to maturity are from date of transplanting.

Culture: See sidebar below for instructions. Melons produce the highest sugars when daytime temperatures exceed 80˚ and nighttime temperatures are 60–75˚.

Diseases: a number after the abbreviation indicates which race of pathogen.

ANTH	Anthracnose	PRSV	Papaya Ring Spot Virus
F	Fusarium	WMV	Watermelon Mosaic Virus
PM	Powdery Mildew	ZYMV	Zucchini Yellows Mosaic Virus

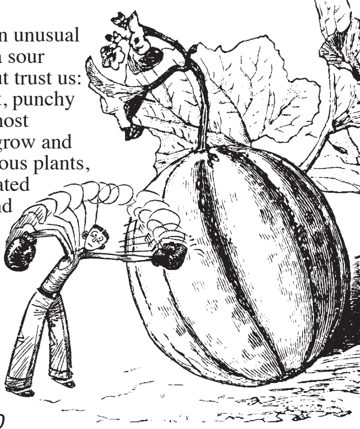
MUSKMELONS *Cucumis melo*

1 gram packet, about 20 seeds, sows 7 hills.

Muskmelons are usually heavily netted and deeply ribbed with larger seed cavities than cantaloupes. They are easier and require less heat to grow well than cantaloupes.

Melonade (70 days) F-1 hybrid. An unusual sweet and sour melon! The idea of a sour muskmelon might sound strange, but trust us: Melonade's firm **orange flesh** is tart, punchy and refreshing. We love it. Unlike most specialty melons, these are easy to grow and can reliably mature in Maine. Vigorous plants, short days to maturity and concentrated fruit set of pretty, netted 4–5 lb round to oval fruits. They will *not* slip from the vine when ripe—cut when skin color changes to pale green or yellow. High resistance to F, intermediate resistance to PM. ③ **NEW!**

962 ***A***: *15 seeds, $7.50*
B: *60 seeds, $24.50*
C: *180 seeds, $55.00*
D: *900 seeds, $250.00*



Halona (74 days) *Dropping all ⑥ suppliers. See page 5. Try **971** Divergent!*

Triton (75 days) F-1 hybrid. If you've been a fan of Athena, you might want to try her foster father's namesake, Triton. The hybrid merman thrived in the harsh conditions of the roiling sea, and this hybrid melon can handle the trials of storage and shipping, making it a great 4–5 lb market melon. Fedco staffers described Triton's **orange flesh** as smooth, mild and slightly sweet. Triton's excellent melon sweetness combined with a smaller seed cavity and high resistance to fusarium wilt might make you want to grab your conch shell to announce your melon joy. ③ **NEW!**

965 ***A***: *15 seeds, $5.00* ***B***: *60 seeds, $11.50*
C: *180 seeds, $30.00* ***D***: *900 seeds, $125.00*

Divergent - Organic (75 days) F-1 hybrid. Exceptionally early, reliable, and even-ripening, Divergent is the cantaloupe-galia cross favored by organic market farmers like Marr Pond Farm in Sangerville, ME (zone 4b!), and serious melon fans in-the-know. It breaks away from the pack of over-sized and under-flavored competition, ripening attractive lightly netted round 2½–3½ lb melons with high sugar content and rich muskmelon flavor even in challenging seasons with cool nights. Plant multiple successions to get a continuous harvest, or let them all come on at once and have a melon festival! Thick **orange flesh** and small seed cavity mean there will be plenty to go around. Tug or cut from the vine when skin is mostly yellow but still has some green tint. ④ **NEW!**

971 ***A***: *15 seeds, $7.95* ***B***: *60 seeds, $20.75*
C: *180 seeds, $48.50* ***D***: *900 seeds, $206.50*

Athena (80 days) *Dropping all ⑥ suppliers. Try **965** Triton!*

Tirreno - Organic (80 days) F-1 hybrid. A reliable Tuscan-type melon that always delivers—netted and striped 2–3 lb round melons have sweet aromatic **orange flesh** with satisfying smooth texture. Plants show outstanding vigor, making this is an especially good choice for areas where spring runs late. When the fruit's green suture forms a yellow edge, you know it's ready to pick. ④ **NEW!**

974 ***A***: *15 seeds, $7.50* ***B***: *60 seeds, $24.00*
C: *180 seeds, $56.00* ***D***: *900 seeds, $200.00*

Sugar Cube (80 days) F-1 hybrid. While the breeder's promo uses all caps to shout muskmelon Sugar Cube's supreme disease resistance, our exclamations exalted the good yield, endearing small size, and flavor that's "just WOW!" as one tongue-tied but satisfied staff member put it. At 4" diameter, this 1½ lb near-globe with light but entire corky netting fits easily in the hand and is ideal for going halfsies. The thick succulent **deep orange flesh** zings like musky candy. "So sweet and heavenly!" said a taster; "Ditto," uttered the next stunned eater. High resistance to PM1-2, F0-2, ZYMV, PRSV, WMV. ②

977 ***A***: *15 seeds, $4.15* ***B***: *60 seeds, $12.25*
C: *180 seeds, $25.50*

Home Run (82 days) *Dropping all ⑥ suppliers. Try **974** Tirreno!*

Hannah's Choice (85 days) F-1 hybrid. Hannah is our hands-down choice in Zone 5, for ease, appearance and flavor in hybrid muskmelons. Farther north, in Zone 4, its eating quality has been more variable. Nikos, our purchaser, likens its flavor to the tropical fruit cherimoya "custard apple"—smooth, perfumy, juicy with syrupy sweetness. Other tasters found it caramelly and detected hints of vanilla and coconut. The 6½ x 5½" large netted oval fruits average 3–5 lb with a high Brix rating of 13. As stunning on the inside as it is imposing on the outside, its rich green rind contrasts with the **deep orange flesh**. Kudos to the Cornell breeding program for developing this gourmet melon. At trials in both Freeville and Jamesport, NY, it had 96% marketable fruits by weight, besting Delicious 51 and Athena in color, depth, Brix and overall quality. Resistant to PM, tolerant to F2, ZYMV, PRSV, WMV. ②

979 ***A***: *15 seeds, $4.50*
B: *60 seeds, $10.00*
C: *180 seeds, $20.00*

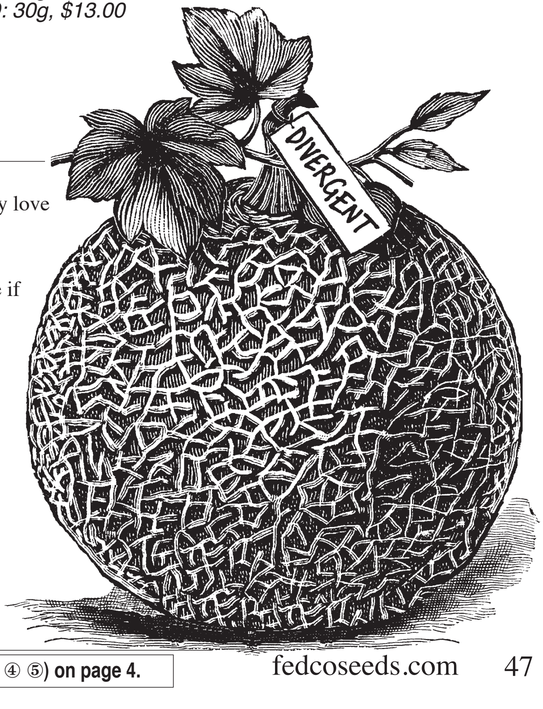
Hearts of Gold (85 days) OP. Once the most popular melon in the Midwest, this 2–3 lb **orange-fleshed** muskmelon with a thin rind and thick flesh still deserves its good reputation. The rich flavor speaks of summer itself—juicy, fragrant, sweetly delish. Vigorous vines easily kick out two ribbed and netted fruits per plant. Introduced at the end of the 1800s as one of the first "modern" melons, it's now been around long enough to be considered an heirloom. Keep on searching for a heart of gold, but first take a sweet melon break. ②

981 ***A***: *1g, $2.50*
B: *3g, $4.25*
C: *15g, $8.75*
D: *30g, $13.00*

Most Years You Can Vine-Ripen Melons In Maine

Melons are a tender crop that require some extra fussing, but the results are sure worthwhile. They love heat, cannot stand frost, and may be damaged by night temps below 40˚.

- Note days to maturity and select varieties that will ripen in your climate.
- Start indoors in early May (later in slow springs) in pots, 2-3 seeds to a pot. **Minimum germination soil temp 60˚, optimal range 75–95˚.** Melons resent transplanting but will take if their roots are not disturbed.
- Prepare hills or rows in advance with liberal amounts of well-rotted manure or compost. A cold start can permanently stunt growth, so wait for a warm spell after all danger of frost to transplant, usually between May 20 and June 20. Don't place melons next to crawling plants like cucumbers, gourds or winter squash. Use black or IRT plastic mulch (page 141).
- Space rows 6-8' apart, transplant melons about 2' apart, watermelons 3-4' apart.
- Use wire hoops and row cover (page 142) to keep out cucumber beetles.
- Consistent water is required for quality melons.
- Use a foliar feeding program to speed ripening.
- Remove row covers as plants begin to flower.
- To reduce rot loss, rotate ripening melons occasionally. To reduce mouse damage, place ripening melons on bricks.
- Inspect your patch daily at ripening time. Check fruits for aroma and color. Most muskmelons are ripe when the pressure causes them to slip from the vine. Watermelons are ripe when the tendril near the stem is dry.

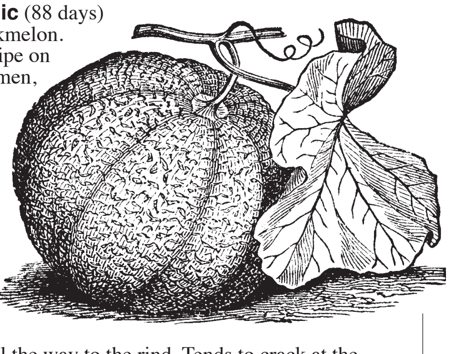


Key to symbols (❄ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

more MUSKMELONS

Arachne - Organic (88 days) OP. Arachne was a weaver who became so skilled in her art that she dared to challenge Athena, the goddess of wisdom, war and handcraft. Things did not go well for Arachne, who was transformed into a spider in a web. Exquisite netting webs the 3-lb oval fruits of her namesake. Firm **orange flesh** is mild but sweet with the right amount of musk. Prolific, with 3–4 fruits per plant. With Arachne in the garden, you may feel emboldened to challenge Demeter—which is how one of our trialers was transformed into a turnip. Seed for this variety is sold under a license. ❧2022. **Breeder Royalties.** ①

982 ***A**: 0.5g, $4.50* ***B**: 3g, $11.00* ***C**: 15g, $24.00*



Pride of Wisconsin - Organic (88 days) OP. The best full-sized OP muskmelon. CR's first fruit, harvested vine ripe on Sept. 3, a flawless 5.56 lb specimen, was the highlight of his 2016 growing season, confirming Pride's place at the pinnacle of heirloom melons. It was melon nirvana: its superb smooth texture and juicy refreshing sweetness satisfying through and through with just the right delicate balance and no musky aftertaste. High-quality large oval **salmon-fleshed** 5–7 lb fruits have coarse netting and compact seed cavities. Edible all the way to the rind. Tends to crack at the blossom end during wet seasons so not recommended for long-distance shipping. Known as Queen of Colorado when it was introduced in 1923 by the St. Louis Seed Co. Offered in the '40s and '50s by Burpee and Eastern States Cooperative. All but disappeared from the trade after the onset of hybridization, maintained by a handful of seed savers. ②

984 ***A**: 1g, $3.25* ***B**: 3g, $6.00*
***C**: 15g, $16.00* ***D**: 30g, $25.00*

Montreal Market - Organic (89 days) OP. Also known as Montreal Nutmeg, one of the best arguments going for maintaining gene banks. Believed extinct, it was saved by Montreal cultural preservationists who finally located a few seeds in the USDA Ames, IA, repository in 1996. This very rare legendary **green-fleshed** muskmelon was once widely grown in Canada, New England and the Upper Midwest. Hedrick in *The Cucurbits of New York* asserted that "handled skillfully and intelligently produces the largest fruits of its type in American cultivation," sometimes reaching 20 lb. With an exotic sweet spicy flavor as unique as its size, these became the summer dessert of choice in New York's Waldorf Astoria, Boston's Ritz and other stylish hotels, fetching growers as much as $30 per dozen in 1921, and costing more per slice than most steaks on the menu. Though commercialized by Burpee in 1881, its roots trace back to early French settlers. Widely grown on the western edge of Montreal in Zone 5b, it gradually disappeared after World War II as expansion and an expressway swallowed up rich agricultural land and tastes shifted away from green-fleshed melons. Its thin rinds, large size and inability to store long also dampened its success. Intricately netted and prominently ribbed, the aromatic fruits have a silky texture and a spiciness reminiscent of nutmeg or ginger. Regular moisture and use of horse manure are said to be the secrets to good growth. In zones and microclimates other than Montreal's more likely to grow 4–5 lb. ①②

986 ***A**: 1g, $3.25* ***B**: 3g, $6.95*
***C**: 15g, $12.50* ***D**: 30g, $23.00*

ANANAS TYPE

Originating in the Mideast, Ananas is a type of white fine-fleshed netted muskmelon that develops considerable sweetness along with a hint of spiciness in summer heat.

Dove (70 days) *Dropping all ⑥ suppliers. See page 5. Try **971** Divergent.*

Courier (85 days) *Dropping all ⑥ suppliers. Try **961** Grusha.*

GALIA TYPE

Galia is the feminine form of the Israeli name *Gal* (meaning 'wave'). Developed in Israel around 1970 by breeder Zvi Karchi, Galias feature smooth light-colored flesh and a sweet taste with tropical overtones. Typically the fruits have corky netting but no ribbing.

Culture: Pull from the vine when the skin blushes yellow, at full slip.

Arava - Organic (80 days) F-1 hybrid. Some years back, during a spring trip to Israel, CR visited Genesis Seeds, the producers of this stellar **green-fleshed** melon that is named for the long valley that traverses much of the desolate Negev Desert in southern Israel. Though it is hard to believe that anything will grow in such a place, these Arava melons are the signature Israeli variety found in all the markets. A welcome relief there at the edge of the desert, where stepping outside mid-morning in April feels like entering a blast furnace. Unsurprisingly, he developed quite a taste for these sweet refreshing fragrant cantaloupes. Smooth, no ridges, lightly netted, blemish-free and uniform. In 2012, Alice harvested 12 fruits from four plants, averaging 1.56 lb each that tested 10.9 Brix. Will grow larger in a warmer climate. Resistant to PM. ③

958 ***A**: 1g, $5.50* ***B**: 3g, $10.75* ***C**: 15g, $33.50*

Grusha - ECO (80 days) OP. This story begins when former Fedco staffer Heron Breen heard tell of a "lost" disease-resistant Cornell-bred melon that embraced the essence of the Black Sea–region heirloom Collective Farm Woman. Curiosity and persistence prevailed, and a small seed sample from the scant stock of the breeder delivered a treasure we can now all enjoy: round-to-oblong 2–3 lb fruits with haunting aromatics and **white flesh** that embodies the texture, flavor and redolence of the finest pear. If picked at early slip with a rusty brown-green rind bleeding to gold, flesh is sugary rich and dense, almost crisp. Left on the vine until near full gold, it becomes smooth, sweetly melting. High yielding, even in the melon-challenging (understatement of the catalog) 2023 season. Named *Grusha*—meaning 'pear'—to honor its women-stewarded heirloom parentage. ❧2023 Ω ① **NEW!**

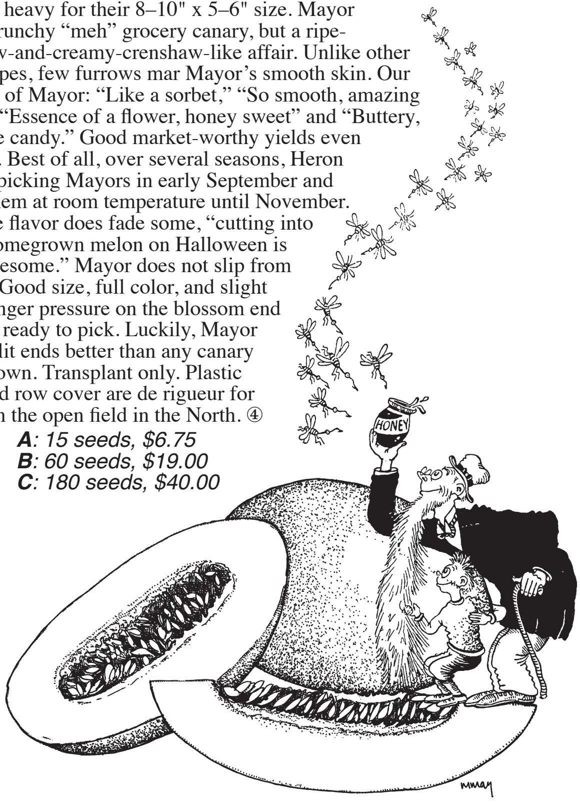
961 ***A**: 15 seeds, $3.75* ***B**: 60 seeds, $9.75*
***C**: 180 seeds, $19.00*

CANARY TYPE

Named for their distinctive yellow skin, canary melons have white interior flesh.

Mayor (85 days) F-1 hybrid. A Spanish-bred canary whose name translates to 'bigger.' The blocky oblong deep golden-yellow 4–6 lb fruits with **white flesh** feel heavy for their 8–10" x 5–6" size. Mayor is not a crunchy "meh" grocery canary, but a ripe-honeydew-and-creamy-crenshaw-like affair. Unlike other canary types, few furrows mar Mayor's smooth skin. Our staff says of Mayor: "Like a sorbet," "So smooth, amazing texture," "Essence of a flower, honey sweet" and "Buttery, tastes like candy." Good market-worthy yields even in Maine. Best of all, over several seasons, Heron reported picking Mayors in early September and storing them at room temperature until November. While the flavor does fade some, "cutting into a good homegrown melon on Halloween is pretty awesome." Mayor does not slip from the vine. Good size, full color, and slight give to finger pressure on the blossom end mean it's ready to pick. Luckily, Mayor resists split ends better than any canary we've grown. Transplant only. Plastic mulch and row cover are de rigueur for success in the open field in the North. ④

927 ***A**: 15 seeds, $6.75*
***B**: 60 seeds, $19.00*
***C**: 180 seeds, $40.00*

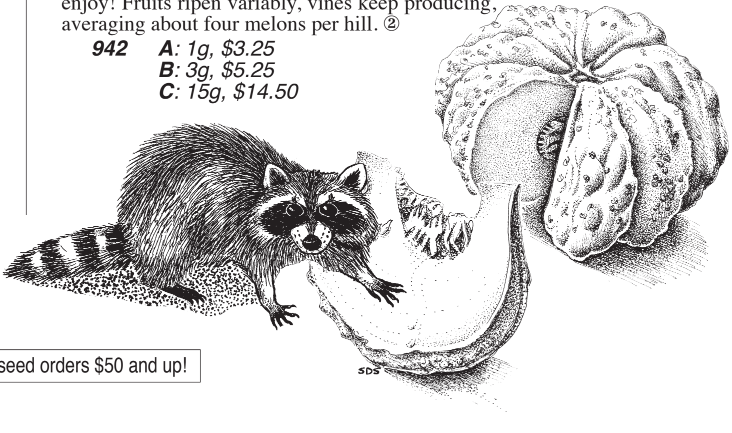


CANTALOUPE

Cantaloupes, named for the papal gardens of Cantalupo, Italy, where some historians say the first cantaloupe was grown, are smooth-skinned or lightly netted with few ridges. Some are warted. Blushing skin color and a whiff of perfume are usually telltale signs of ripening.

Prescott Fond Blanc (88 days) OP. Fond Blanc translates to 'white bottom.' Don't be fooled by the outer appearance of this wrinkled bumpy warted thick-skinned puffy-looking grey-green rock melon! (One author describes the skin as "tough as rhinoceros hide.") Looks like spumoni on the inside, the outer layers of green and yellow giving way to **deep orange flesh** in the center. Then oo-la-la! Sniff its rich bouquet and bite into the juicy melting dense savory flesh. As Prescott's 3–5 lb true cantaloupes ripen they develop a yellow blush and a floral redolence, and finally slip off the vine with light pressure when fully ripe. Bring them in and let them sit for a week, then enjoy! Fruits ripen variably, vines keep producing, averaging about four melons per hill. ②

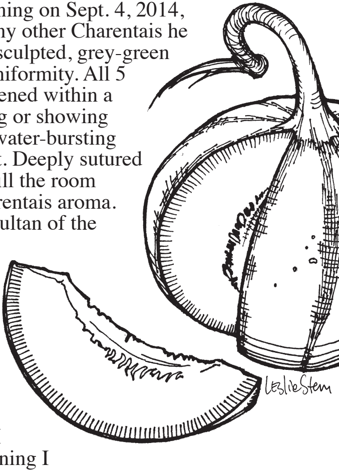
942 ***A**: 1g, $3.25*
***B**: 3g, $5.25*
***C**: 15g, $14.50*



CHARENTAIS

This French melon is a true **cantaloupe**, almost smooth with no netting. Green skins blush yellow-tan when ripe; fruits emit a memorable redolence.

Harvest at half-slip (they pull off with a moderate tug) and bring inside for a day or two for best flavor. Don't wait till full slip—they'll be over-ripe.



Alvaro (77 days) F-1 hybrid. A class of cantaloupe notoriously slow to ripen and difficult to harvest ripe without splitting, the ideal Charentais eluded our trialers for years until Heron found early and easy Alvaro. CR's, first ripening on Sept. 4, 2014, were still way earlier than any other Charentais he had ever tried. Almost as if sculpted, grey-green Alvaro shows remarkable uniformity. All 5 fruits, averaging 2.28 lb, ripened within a 3-day window, none splitting or showing any other damage. Even in water-bursting 2013, Heron had nary a split. Deeply sutured 5x6" fruits without netting fill the room with that incomparable Charentais aroma. In 2020 on July 28 Altoon Sultan of the Northeast Kingdom of VT delightedly observed: "With the wacky hot weather we've been having, a lot of my warm weather garden vegetables have been early…But when I saw the Alvaro melons starting to warm in color a couple of days ago, I was flabbergasted. This morning I picked two…now in my kitchen…and scenting the room deliciously." Thick **orange flesh** luscious and succulent with silky but firm texture and rich full-bodied flavor—everything we've wanted in a Charentais but not found since French Orange. ④ *Check our website for larger packet sizes.*

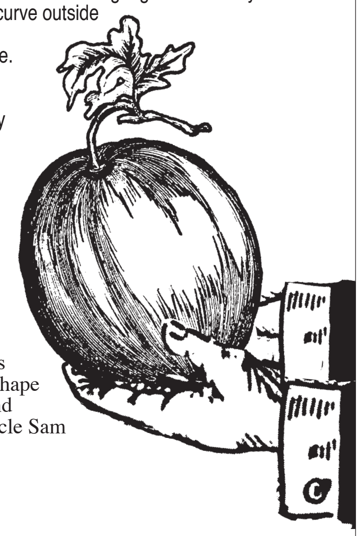
948 ***A**: 10 seeds, $5.85*

HONEYDEW

About 28 seeds/g.

Discerning ripeness in honeydews is an art. At least two or three of the following signs should align before you cut fruit from the vine:

1) Fruits are free of fuzz or minute hairs that denote immaturity.
2) Stems dry at tendrils.
3) Fruits assume proper coloration (different for different varieties).
4) Light firm pressure applied to fruit bottom results in a slight give or rubbery rebound (pick soon). Give extends into the curve outside of the blossom scar (pick now). Do not wait for full slip—fruits will crack and get over-ripe. Cure 1–4 days off the vine for best flavor, until it develops a very subtle sweet smell of perfumed honey indicative of melting juicy full-flavored flesh.



Uncle Paul (80 days) F-1 hybrid. Having bid farewell to excellent but discontinued Uncle Sam, we welcomed Uncle Paul. Sam and Paul are siblings from the same high-quality **orange-fleshed** honeydew breeding program. Dense orange flesh is richly honey-flavored. Cream-colored skin blushes peach, and we've seen none of Sam's infamous cracking. Paul averages 3–3½ lb and tends toward oval-round shape with consistent sizing. Early, reliable and productive in the North. Sometimes Uncle Sam lets us down—turn to Uncle Paul. ④

964 ***A**: 10 seeds, $6.25*
***B**: 60 seeds, $15.00*
***C**: 180 seeds, $38.00*

Huerfano Bliss - Organic (90 days) OP. Our West Coast grower loves this melon—a treasured heirloom from the Huerfano River region in southwestern Colorado—and has campaigned for us to love it, too. After three years of trials in Maine, this **orange-fleshed** honeydew made it through our rigorous gauntlet as an early productive yummy OP complement to hybrid Uncle Paul. Slightly oval 5x6" pale yellow fruits averaging about 5 lb are smaller and more oblong than Uncle Paul, but carry their weight in mouth-watering juiciness and flavor. They keep going until frost and keep up to 3 weeks in cool storage. Does not slip from the vine; harvest when the blossom end exhibits a slight softening or the color subtly shifts. ①

966 ***A**: 1g, $4.25*
***B**: 3g, $9.50*
***C**: 15g, $24.00*

SENSATIONAL MELON

Sensation (85 days) *Dropping all ⑥ suppliers. Try **986** Montreal Market!*

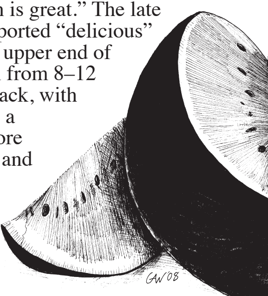
WATERMELONS *Citrullus lanatus*

1/16 oz packet about 40 seeds, sows about 12 hills; 1/2 oz packet about 335 seeds. 1 oz is about 670 seeds.

Culture: See sidebar on page 47.

We'd always said to thump and squeeze your watermelons to determine ripeness. Heron strongly dissented, "This is erroneous, big time. I have picked hundreds of perfect watermelons over the years, as has my Mom before me for decades. The ONLY legit way to tell if ripe is indeed the dry or partially dry tendril where the fruit stem attaches. This thumping thing and pressing thing is not legit."

RED & PINK FLESH WATERMELON



Blacktail Mountain - Organic (71 days) OP. At age 17 cucurbit aficionado and future eminent seedsman Glenn Drowns took on his 4-year project to breed a watermelon that would withstand the rigors of his mountainous northern Idaho climate and ripen before first frost despite summer nighttime temperatures that averaged 43°. No wonder Blacktail Mountain is the earliest variety extant, among the hardiest, best adapted to a variety of conditions, and even stores after harvest as long as any. J.T. Miles of MA concurs: "I don't have great luck with watermelon; the ones that grow here just don't taste good. But Blacktail Mountain is great." The late Adam Tomash and June Zellers reported "delicious" 17 and 19 lb melons. This is at the upper end of Blacktail's potential; most will run from 8–12 lb. Fruits are dark green, almost black, with faint stripes, **flesh orange-red** like a Sugar Baby only with a cleaner more pleasing texture, very sweet, juicy and crunchy. Drowns didn't rest on his laurels—he now maintains Sand Hill Preservation Center in Iowa, his catalog a treasure trove of rare seed and poultry varieties. **OSSI. Breeder Royalties.** ②

1003 ***A**: 1/16oz, $3.50* ***B**: 1/4oz, $9.25*
***C**: 1/2oz, $15.25* ***D**: 2oz, $32.50*

Diana (76 days) F-1 hybrid. Our 2013 summer hunt for yellow-skinned luster and excellent quality showed Diana supreme. Easily besting past favorite Golden Crown, AAS winner Faerie and open-pollinated Golden Midget, Diana's 10.3 Brix reading dwarfed Midget's anemic 7.4. The 2.2 lb oval melons look as if their light skins were painted with bright yellow stripes. Crunchy texture, sweetness and complex flavor, unmarred by the small sparse seeds, won over our warehouse staff. Showed good productivity of 6 fruits from two hills in a poor melon year. "A hit, lovely golden rinds and very sweet **bright red flesh**," sums Ohio's Janine Welsby. *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Sugar Baby - Organic (80 days) OP. The first of its genre and still the standard northern icebox watermelon. Among the earliest in its class, Sugar Baby grows 8–10 lb fruits, dark green outside and **deep red** inside. Discovered in a field of picnic watermelons by M. Hardin of Geary, OK, in 1955 and introduced by the Woodside Seed Co. Still prized by those who prefer their watermelons OP and of modest size, although its flesh quality is grainier than the pricey supermarket mini-melons. ②

1028 ***A**: 1/16oz, $3.50* ***B**: 1/4oz, $5.75* ***C**: 1oz, $9.75*

Sweet Dakota Rose - Organic (82 days) OP. When David Nonnenmacher of Hawley, PA, claimed his absolute beauties started at 15 lb and topped off at 26 and 28, he would perhaps forgive our skepticism. You couldn't grow those in Maine, we thought, until Erica Rudloff of Exeter proved us wrong by exhibiting her magnificent 19-lb specimen at the 2015 Common Ground Fair. Nonnenmacher clarified that he had mere 15-pounders in 2017's cool summer but praised their production and sweetness despite the weather. Andy McLeod "weighed" in: "I'd been watching a monster Sweet Dakota Rose since early August and it felt like it weighed more than my 30-lb son. We had 20 people over on Sunday and didn't even make it through ¾ of it. And it was perfectly ripe." Bred by David Podoll of North Dakota to be intermediate between its parents, small early maturing Early Canada and enormous late-maturing Black Diamond, its skin light green with dark green stripes and its **flesh red**. A star in CR's trials, maturing early and producing 8–12 lb fruits, 2–3 per plant. It has few seeds and stores longer than most others. Nonnenmacher reported its outstanding juiciness and flavor "drew raves from chefs and many fellow PASA members. I think I have them convinced that modern seedless watermelons not only leave out the seeds but also the flavor." We have no difficulty believing that. **OSSI** Ω ①

1035 ***A**: 1/16oz, $3.75*
***B**: 1/4oz, $9.25*
***C**: 1oz, $23.00*

more PINK & RED FLESH WATERMELONS

Quetzali - Organic (85 days) OP. Sweet (tested 9.7% sugars at WSU trials) with some substance. Ripens 9–12 lb fruits with dark green skin splotched with lime-green sponge prints. Even more attractive on the inside where the dense **pink flesh** is almost seedless! Caution: Requires a sharp knife, strong wrist and sure stroke to cut open its skin. Resists ANTH1. ①

1043 ***A****: 1/16oz, $4.00* ***B****: 1/4oz, $8.00* ***C****: 1oz, $28.00*

Sunsweet (85 days) *Not available in 2024. Crop failure.*

Fantasy (85 days) *Not available in 2024. Dropped by our supplier.*

Verona - Organic (86 days) OP. We started growing seed for this rare large red oblong watermelon after the original Willhite Seed dropped it. Considered the earliest and best-tasting of the Black Diamond types, Verona pumps out 15–20 lb fruits with thin but tough smooth dark green skin and attractive firm **red flesh** that isn't mealy. Sweet and tasty, great flavor for an OP melon, Verona had high yields in the OSU trials and got raves at our staff taste test. Well adapted to cool climates, has produced impressively even as far north as Starks, ME. Introduced in 1965 in Mississippi, one of its parents is the famous Charleston Gray. Tolerant to ANTH, F. ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

La Bestia (87 days) F-1 hybrid. Despite being bred for Latin America, La Bestia's early large yields and behemoth size will shatter at least some Northern preconceived notions. An extra big and bulky elongated Sangria-type with intensely sweet **deep red flesh**, this beast rocked the scales at 15–20 lb even in Maine's cool slow-starting summer of 2019. Three monsters per plant were cut from thick rambunctious vines more akin to winter squash in vigor. Long keeping and shipping qualities result from a solid rind thickly swathed in dark green with thin light streaks. ④

1050 ***A****: 15 seeds, $4.25* ***B****: 60 seeds, $10.95*
C*: 180 seeds, $23.50*

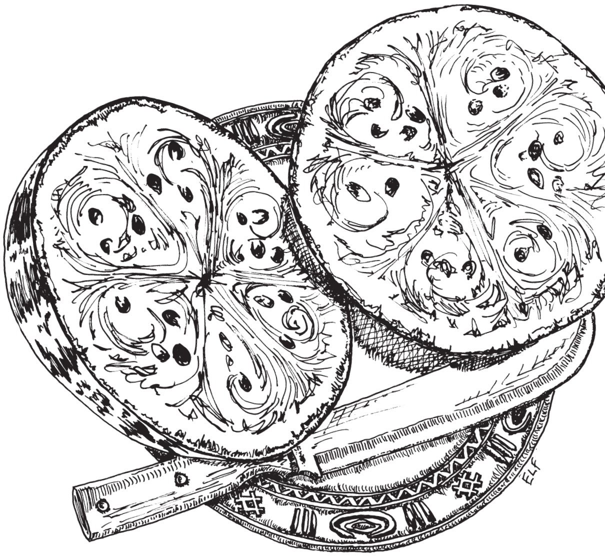
Sangria (88 days) *Dropping all ⑥ suppliers. See page 5. Try* ***1050*** *La Bestia.*

Crimson Sweet - Organic (90 days) OP. This almost-round 10x12" light green melon with bold dark green stripes has very sweet crisp **dark red flesh** and deeply satisfying flavor. It has defined good watermelon eating since 1964 when it was developed by Dr. C.V. Hall of Kansas State. Tolerance to ANTH1,3 and F1,2 and a thick skin suitable for shipping make it a commercial favorite in the Middle Atlantic states and the Southeast. 9.9 Brix at WSU trials. Vigorous vines. Pam Dawling who grows seed for it says 22 melons yield 1 lb of seed. 1978 AAS winner. *Recommended only for growers in climates warm enough to grow a 25 lb watermelon.* ②

1063 ***A****: 1/16oz, $3.75* ***B****: 1/4oz, $6.75*
C*: 1/2oz, $8.50* ***D****: 2oz, $21.00*

Moon and Stars - Organic (100 days) OP. Dark green skin has beautiful yellow spots which range in size from little peas (the stars) to a silver dollar or larger (the moon). Sweet (9.7 Brix) somewhat grainy **pink flesh**, and such a looker! Once feared extinct, this now-famous watermelon became a cause célèbre for the Seed Savers Exchange. Released by Peter Henderson & Co. as Sun, Moon and Stars in 1926, it was popular in the '30s before fading into obscurity for almost fifty years. Seed Savers Exchange co-founder Kent Whealy found it again in 1981 after a four-year search and his son Aaron supplied us with our original seed when he was just 12 years old. Spotted foliage, actually a product of a virus found in the breeding lines, looks unhealthy to the uninitiated. Because it *needs a lot of heat to set fruit*, it poses a challenge worthy of the Maine melon-grower's mettle. ②③

1072 ***A****: 1/16oz, $3.50*
B*: 1/4oz, $7.50*
C*: 1oz, $19.00*



YELLOW & ORANGE FLESH WATERMELON

Peace (75 days) F-1 hybrid. At the end of CR's CGCF Exhibition Hall table talk one Sunday we tasted Peace alongside the old standard Seminis/Monsanto's Yellow Doll. Although the informal vote afterwards was split, Peace compared favorably in flavor, texture and sweetness enhanced with a floral aftertone that added some complexity. Its **yellow flesh** has that kind of drizzle-down your chin juiciness that thoroughly satisfies on a hot late-summer day. Good production of fruits averaging 8 lb and adorned with light green skin punctuated with narrow dark green stripes. ③ *Supply uncertain at press time—check our website for availability.*

Early Moonbeam - Organic (78 days) Open-pollinated stabilized selection from Yellow Doll, one of breeder Alan Kapuler's notable successes in de-hybridizing. He retained most of Doll's strengths including earliness, icebox size (5–8 lb), sweet **yellow flesh** and colorful skin of dark green stripes on a greenish-white background, while sacrificing only a scintilla of uniformity and flavor. Brix reading of 9.9 at WSU trials. **Breeder Royalties.** ①

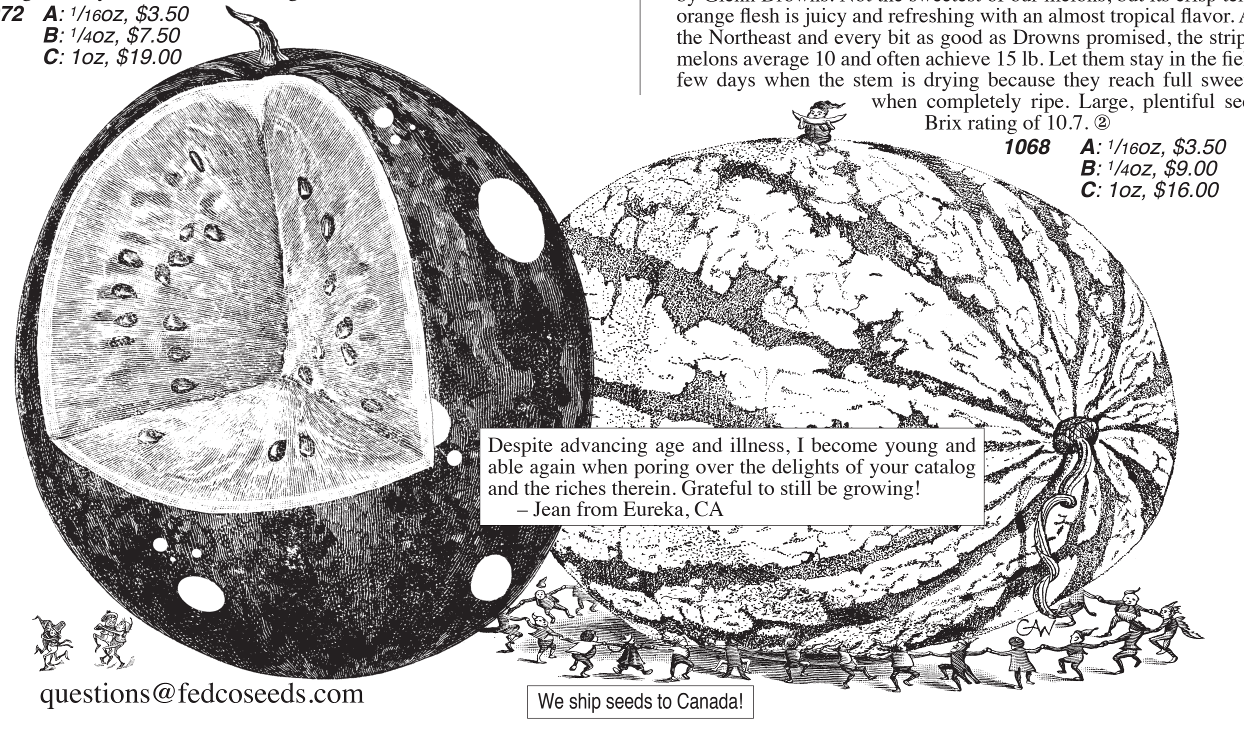
1021 ***A****: 1/16oz, $3.75* ***B****: 1/4oz, $7.95* ***C****: 1oz, $23.00*

Orange Orchid (78 days) F-1 hybrid. A smaller more-marketable alternative to Orangeglo, Orchid provides reliable early production of refined 6–8 lb oblong fruits with **bright orange flesh**, crisp texture and super sweet floral flavor and not a hint of the hollow heart that can plague orange-fleshed watermelons. Medium light green rind with dark green striping. Ripened Aug. 29, 2013, for Heron from a late June 12 transplanting. William Gray who grows Orange Orchid in the Upper Midwest reported a yield of 5 melons all with outstanding flavor and a top weight of 8 lb 14 oz. ③ *Check our website for larger packet sizes.*

1024 ***A****: 1/16oz, $6.75* ***B****: 1/4oz, $18.75*

Orangeglo (90 days) OP. The most **orange** of watermelons, much favored by Glenn Drowns. Not the sweetest of our melons, but its crisp tender bright orange flesh is juicy and refreshing with an almost tropical flavor. Adapted to the Northeast and every bit as good as Drowns promised, the striped oblong melons average 10 and often achieve 15 lb. Let them stay in the field an extra few days when the stem is drying because they reach full sweetness only when completely ripe. Large, plentiful seeds. WSU Brix rating of 10.7. ②

1068 ***A****: 1/16oz, $3.50*
B*: 1/4oz, $9.00*
C*: 1oz, $16.00*



Despite advancing age and illness, I become young and able again when poring over the delights of your catalog and the riches therein. Grateful to still be growing!
– Jean from Eureka, CA

OKRA

Abelmoschus esculentus

- About 10–15 seeds/g. 2 gram packet contains about 20–30 seeds.
- Days to maturity are from date of transplanting.

Culture: Start indoors in peat pots and transplant in 4–5 weeks, after all danger of frost has passed. **Minimum germination soil temperature 60°, optimal range 70–90°.** Transplant 1' apart; do not disturb roots. Once it flowers, the fleshy pods will be ready for harvest in two days. They are best when picked young and tender. Larger pods are really fibrous, however Chris Smith's book *The Whole Okra* provides a plethora of options for using the ones that slip past. Southern growers may declare okra pest-free, but our northern slugs beg to differ.

Maine state representative Craig Hickman of Annabessacook Farm in Winthrop, who grows 400 plants per year, says okra requires TLC, balanced nutritious soil with good pH, and not much competition from weeds. According to one of his veteran fieldhands, "Okra is a diva…that needs hot weather for about 60 days."

Cajun Jewel - Organic (65 days) OP. A bayou favorite since the 1950s, Cajun Jewel adapts well to our cooler climate and produces almost as much as hybrid Cajun Delight. Dwarf spineless 3–4' plants yield relatively early 1x7" pods with good flavor. Staffer Emily Skrobis grew four plants in a hoophouse, and they provided her with plenty of okra until frost. She enjoyed regular picking in part so she could admire each new flower. Southern Exposure Seed Exchange introduced this Jewel to commerce in 1989. **Black Benefit Sharing**. ②

3695 ***A**: 2g, $3.25* ***B**: 4g, $4.45* ***C**: 28g, $14.00*
***D**: 112g, $31.00* ***E**: 448g, $105.00*

Red Burgundy - Organic (75 days) OP. This dual-purpose cultivar is a stunning ornamental as well as a culinary delight. Although most productive in the South, Red Burgundy is hardy enough to generate at least a few pods here. Slender pods will grow 6–7" but are best harvested at 4" for optimal texture and flavor. Our trialer Relentless says they "taste as good as any green okra." Later and not as productive here as Cajun Jewel, but an absolute stunner with its green leaves and burgundy ribs, stems and pods. Bred by Leon Robbins at Clemson University. **Black Benefit Sharing**. ③

3698 ***A**: 2g, $2.95* ***B**: 4g, $3.50* ***C**: 28g, $5.95*
***D**: 112g, $13.00* ***E**: 448g, $24.00*

Beck's Big Buck - Organic (85 days) OP. When Malcolm and Delphine Beck bought their farm in 1968 in Comal County, TX, they found in the abandoned garden giant okra stalks with the fattest pods they'd ever seen. They saved and replanted the seed, and it grew big fluted remarkably tender delicious green pods in abundance on sturdy plants. They called it the snapping okra because it snaps so easily off the plants when it is ready to harvest. Though not adapted to our climate, Beck's will produce even in central Maine in an average growing season. Of course, it will do much better farther south. Regardless, the flowers make it a gorgeous ornamental. **Black Benefit Sharing**. ②

3699 ***A**: 2g, $2.95*
***B**: 4g, $4.10*
***C**: 28g, $12.25*
***D**: 112g, $24.00*

ONIONS, SHALLOTS, LEEKS & SCALLIONS

Allium spp.

Culture: Start allium seeds indoors in February or March. **Minimum germination soil temperature 45°; optimal range 60–70°.** We discourage using bottom heat because alliums germinate poorly in soil temps above 70°. Transplant in spring soon after the ground can be worked.

Alliums are heavy feeders and want generous amounts of organic matter, fertilizer and water. Late transplanting and poor fertility can result in small onions or failure to form bulbs. Alliums are notoriously intolerant of weeds. Slugs love to munch them, and in areas above 40° latitude, root maggots may be a problem.

About allium seed: Allium seed is short-lived. We do not hold over hybrid onion seed because of precipitous decreases in germination. Test 1-year-old seed before using. Discard anything older.

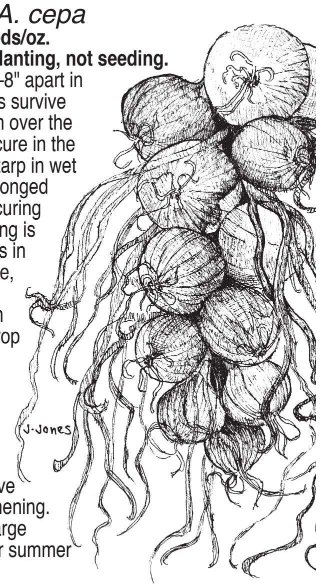
Diseases:

DM	Downy Mildew
PR	Pink Root

ALERT: Leek Moth is emerging as a serious pest potentially affecting all Alliums in the Northeast. Consult your local Cooperative Extension for more info.

ONIONS *A. cepa*

- About 200–250 seeds/g, 5,700–7,000 seeds/oz.
- Days to maturity are from date of transplanting, not seeding.



Culture: Set seedlings out 1–2" deep and 6–8" apart in shallow trenches, 1–2' between rows. Onions survive light frosts. After half the onion tops fall, push over the remainder and harvest within a week. Field-cure in the sun about 10 days until dry, covering with a tarp in wet weather. In the event of extreme heat or prolonged damp conditions, we recommend sheltered curing in a well-ventilated barn or greenhouse. Curing is essential for long storage. Store cured onions in mesh sacks in a cool dry well-ventilated place, periodically removing sprouting or rotting bulbs. In spring, put your remaining onions in the fridge to extend storage until your new crop is ready.

Onions are triggered to form bulbs in response to day length. Day length differs depending on latitude, so different onion varieties were developed to have different day-length needs. In the north, the earlier onions are set out, the more chance they have to make top growth while the days are lengthening. High fertility and steady water is crucial for large onions. Side dressing is recommended. After summer solstice they begin bulbing.

All the varieties we list are suitable for northern growers. If you live farther south, note our latitude specifications at the end of each description.

Long-day: Must be north of 36° latitude, though some long-day types perform best north of 40°. These onions need 14–16 hours of sun a day to trigger bulb formation. May not perform well in continually hot soil temps.

Intermediate-day: Also called day-neutral onions, generally need 12–15 hours of daylight to bulb. Some can do well in parts of the upper southern U.S. all the way up through Maine. Others are best for mid-latitudes only (35–40°). All intermediate-day onions in our catalog have performed well repeatedly in our Maine trials.

(Short-day: Suited for the South, below latitude 36°, bulbing when the day length measures between 10–12 hours. *We don't offer seed for short-day varieties.*)

YELLOW SUMMER ONIONS

Ailsa Craig (110 days) OP. These enormous slightly oval pale straw-colored globes are sweet, juicy, mildly pungent and store but a short while. Catalog editor Elisabeth gives them a prominent place in the garden where the 1–3 lb beauties boost her morale each time she walks by. Emily Skrobis focused only on storage onions until she met Ailsa: "Now I can't imagine my garden without it!" Year after year astounding specimens are exhibited at Common Ground Fair. Also known as Exhibition, a cross between Danvers Yellow and Cranston's Excelsior, introduced by David Murray in 1887. Adapted to 38-60° latitudes. ④

2484 ***A**: 1/32oz, $4.50* ***B**: 1/8oz, $8.00*
***C**: 1/2oz, $26.00* ***D**: 1oz, $46.00*

Walla Walla Sweet Spanish (125 days) OP. "Join the funion and be part of the onion ring" is the slogan of the annual June sweet onion festival celebrated in Walla Walla, WA. Their signature sweet onion is said to have originated in the French island of Corsica and been brought to Washington by a French soldier. It became famous in the Pacific Northwest for its juicy sweet flavor and has been in commerce since around 1900. In WA it can be wintered over. In our harsher zone it must be sown in the spring for fall harvest. These large, some say voluptuous, onions are renowned for their mild flavor as soon as they come out of the ground. They do not store. Adapted to 35-55° latitudes. ①

2498 ***A**: 1/32oz, $3.75* ***B**: 1/8oz, $5.25* ***C**: 1/2oz, $9.00*
***D**: 1oz, $15.00* ***E**: 4oz, $38.00* ***K**: 1#, $135.00*

YELLOW STORAGE ONIONS

Expression (98 days) F-1 hybrid. The testimonials poured in when we threatened to drop this onion. Since you expressed yourselves, we've kept this nice big juicy one around. "As large and flavorful as Candy with better disease resistance," said Anne Nordell of Trout Run, PA. "Wow, we had some that weighed almost 1.5 lb apiece…I haven't been able to eat any onions raw for years, but I was delighted to find that these did not bother my stomach at all," chimed in Janine Welsby. Short to medium storage, decent heft (the large light brown globes average about 12 oz) and flavor. Bred by Bejo for high yields in rich clay loamy soils in the Northeast and PA. PR-tolerant. Adapted to 32-45° latitudes. ④

2454 ***A**: 100 seeds, $4.25* ***B**: 250 seeds, $6.00*
***C**: 1,000 seeds, $16.00* ***D**: 5,000 seeds, $35.00*
***E**: 20,000 seeds, $110.00*

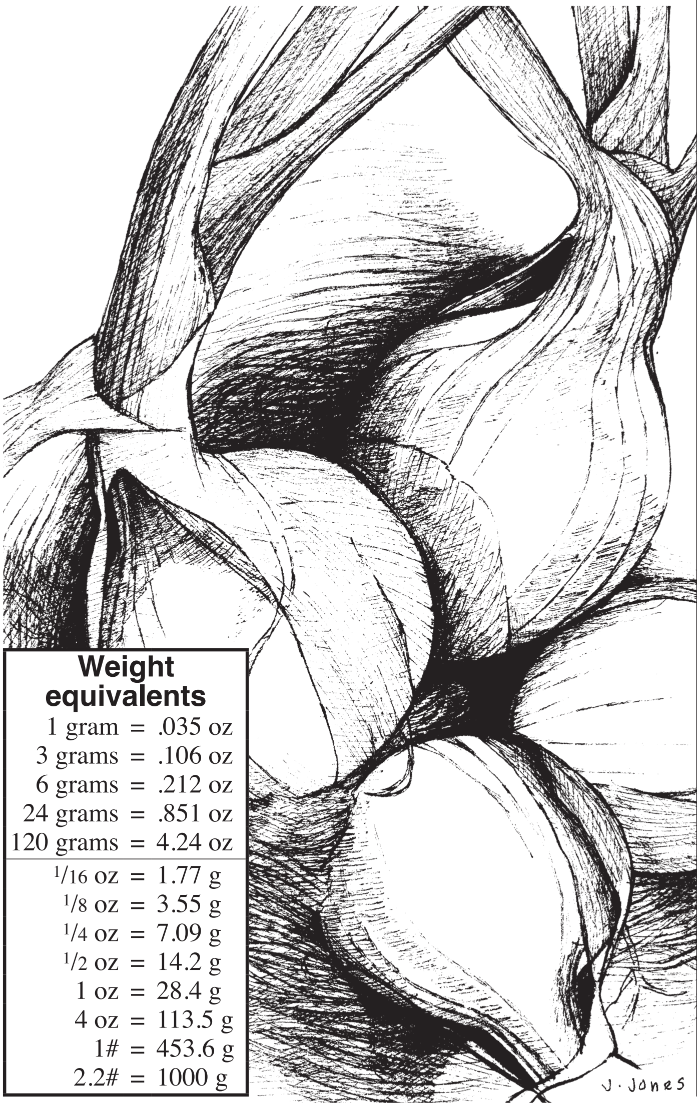
New York Early - Organic (98 days) *Crop failure. Not available in 2024.*

Patterson (104 days) F-1 hybrid. Blocky-globed rusty-bronze–skinned Patterson has emerged as Copra's worthy heir apparent, with glowing reports from our trials and from Fedco staff. At 1.3 lb average Patterson is large and uniform with healthy necks. Reliably delectable cooked or raw, with quality that holds through long storage. Beholding a bag of onions in the winter larder calls to mind lines from William Carlos Williams' epic poem *Paterson*: "You lethargic, waiting upon me, waiting for the fire and I, attendant upon you, shaken by your beauty. Shaken by your beauty. Shaken." Adapted to 38-55° latitudes. ④

2472 ***A**: 100 seeds, $4.00* ***B**: 250 seeds, $6.00*
***C**: 1,000 seeds, $13.00* ***D**: 5,000 seeds, $32.00*
***E**: 20,000 seeds, $100.00*

Clear Dawn - Organic (104 days) OP. The best open-pollinated storage onion, Dawn has gotten better and better over years of selection with great storage capability. 8–10 oz average and very hard. Clear Dawn was bred out of Copra and introduced by Beth and Nathan Corymb of Meadowlark Hearth after being entrusted to them by biodynamic growers Claire Hall and Don Jason. Adapted to 38-50° latitudes. ①

2474 ***A**: 1/16oz, $4.10* ***B**: 1/8oz, $5.60* ***C**: 1/2oz, $16.60*



Weight equivalents

1 gram = .035 oz
3 grams = .106 oz
6 grams = .212 oz
24 grams = .851 oz
120 grams = 4.24 oz

1/16 oz = 1.77 g
1/8 oz = 3.55 g
1/4 oz = 7.09 g
1/2 oz = 14.2 g
1 oz = 28.4 g
4 oz = 113.5 g
1# = 453.6 g
2.2# = 1000 g

Borettana Cipollini (105 days) OP. Sweet, dependable, easy to handle and delectable, this Italian heirloom is the quintessential boiling and braising onion. Shaped like a button, up to 4" wide (normally 3") but less than 1" thick. Flattened spheres with bright shiny golden skin. Fine-grained mild flesh with a well-developed flavor. Appreciated in soups, stir-fries and shish kebab. Braids beautifully and keeps till late winter. Adapted to 38-50° latitudes. ②

2477 ***A**: 1/16oz, $3.75* ***B**: 1/8oz, $5.00* ***C**: 1/2oz, $10.50*
***D**: 1oz, $15.50* ***E**: 4oz, $46.00*

Talon - Organic (110 days) F-1 hybrid. With tremendous Talon comes braggadocio. Nothing subtle about these bronze-brown–skinned storage onions that averaged almost 2 lb, even without irrigation in the 2016 drought. Very uniform tall blocky globes cling to the ground during active growth. Tall disease-resistant tops mirror those strong roots. In 50° storage, our Talons stayed rock hard with no sprouting until mid-May when we finished eating them before discovering their full storage potential. Customer Alex Pakulski, who grew 80 lb of onions last year, lauds Talon for its size ("some softball size") and storage. Raw, the flavor starts sweet and builds to a lingering medium pungency. Cooked, they stay firm but succulent; Talon is a full balance of sweet and allium tang. After dying back and curing, a nub of neck may remain that does not affect storage quality. Trim at that natural point of attachment. Adapted to 38-50° latitudes. White or yellow certified-organic coating. Resistant to DM. ④

2487 ***A**: 100 seeds, $4.50* ***B**: 250 seeds, $6.85*
***C**: 1,000 seeds, $16.45* ***D**: 5,000 seeds, $46.00*
***E**: 20,000 seeds, $154.00*

Dakota Tears - Organic (112 days) *Not available. Crop failure due to hail.*

RED SUMMER ONIONS

Cabernet - Organic (90 days) F-1 hybrid. Every season, we northern-tier growers fret over the always-late red onions. Will they fully ripen, cure and keep? Cabernet released us from this worry with fancy red onions ready for fresh use and market in late July. By Aug. 9, two-thirds had lain down, a full week before New York Early began its descent. By Aug. 31, Cabernet was firm, cured and ready for 3–4 months storage. No shortcomings in this classy uniform early red. The 3½" wide, 8 oz single-centered globes slice to the perfect size to top a large burger. Raw, the rings are many and thin, finely textured and crunchy, sweet and slightly spicy. Cooked, the excellent aroma and full sweetness will induce you to use them up long before they reach their storage limit. Adapted to 35-45° latitudes. ④

2445 ***A**: 100 seeds, $4.50* ***B**: 250 seeds, $6.50*
***C**: 1,000 seeds, $15.75* ***D**: 5,000 seeds, $42.00*

Rossa Lunga di Tropea (110 days) OP. The famous Italian heirloom torpedo onion whose name means Long Red of Tropea. Tropea, in Calabria near the southern tip of Italy, is the site of a famous onion festival every August. Elongated like torpedos, these thin-skinned glossy maroon bulbs with lighter interiors are easily sliced into even rings. Sweet, mild and delicious for fall enjoyment. Plants died back in the first week of October for Donna Dyrek, will finish earlier if started indoors March 1. Excellent bunched fresh for midsummer markets. Chefs love them for grilling or braising. Adapted to 35-48° latitudes. ②

2485 ***A**: 1/16oz, $3.75* ***B**: 1/8oz, $5.25* ***C**: 1/2oz, $9.00*
***D**: 1oz, $14.00* ***E**: 4oz, $36.00*

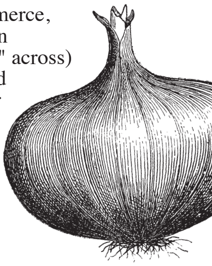
> Your shopping cart/ordering system is by far the best I've seen. Very clean, simple, and fast. Whoever your web developer is, my hat's off to them!
> – Nathan from Boaz, AL

RED STORAGE ONIONS

Red Mountain (107 days) F-1 hybrid. When we heard from breeder Bejo that Redwing's boots would soon walk out the door, finding a replacement looked like a tough climb. But, our 2018 and 2019 storage onion trial turned out to be an easy stroll up Red Mountain. Red Mountain brings the same large 16–18 oz glossy deep red globes as Redwing, but it sizes more consistently regardless of dry or wet conditions. Red Mountain's necks sit down in the field 10 days earlier than Redwing, aiding harvest in unpredictable fall weather. The earlier harvest sacrifices nothing in curing and storage, as Red Mountain keeps like a rock through April with succulent texture and balanced mild sweet onion flavor. When we cooked it after long storage, we thought the bulb and ring of Red Mountain had better color than Redwing. Adapted to 43–65° latitudes. Resistant to PR. ④ *Check our website for larger packet sizes.*

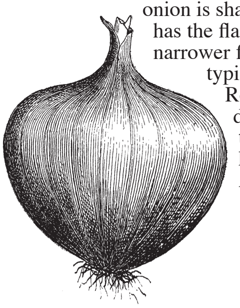
2492 ***A**: 0.5g, $4.00*
***B**: 1g, $6.95*

Red Wethersfield (110 days) OP. Grow a piece of history, the onion that made the town of Wethersfield, CT, famous and has been a home-garden favorite for two centuries. First offered commercially in 1834, it was grown extensively for market in the 19th c. and even used as currency in the town. At the height of its onion commerce, Wethersfielders annually shipped more than 5 million pounds to the South and the West Indies. Large (4–5" across) medium-firm purple-red flattened globes, pink-tinged white flesh with red concentric circles, have stronger flavor than most yellow onions. Keeps till late winter. The 1856 Comstock, Ferre & Co. catalog called it "fine-grained, pleasant flavored and very productive." Adapted to 38-50° latitudes. ②



2481 ***A**: 1/16oz, $3.35* ***B**: 1/8oz, $4.75*
***C**: 1/2oz, $10.00* ***D**: 1oz, $14.50*
***E**: 4oz, $35.00*

Rossa di Milano - Organic (114 days) OP. "The most delicious of all the onions I've grown," says Tom Vigue. This excellent red Italian storage onion is shaped like a buttercup squash without the button. It has the flat square-shouldered top tapering like a barrel to a narrower flat bottom. A few years ago our supplier lost this typical shape. Now our stateside grower is reselecting Rossa for both form and storage. Tops slow to go down. Encourage the recalcitrant ones by pushing them over. Takes a while in fall to dry. Very hard and keeps a long time, till May for Vigue. Adapted to 35-45° latitudes. ①



2490 ***A**: 1/16oz, $4.25*
***B**: 1/8oz, $6.75*
***C**: 1/2oz, $21.00*

Red Bull (118 days) F-1 hybrid. Red Bull is one good storage onion. In fact, we're so ramped up about it that we can't sleep. These super-hard large 3–4" red globes average 8 oz and will keep until May. Shinier and darker than Rossa di Milano and red through and through. Donna Dyrek rates her Red Bull as very red, very big and very nice. Adapted to 43-65° latitudes. Strong tops are slow to quit growing and often won't sit until Oct. 1 so may require too long a season for most of central Maine and areas farther north. ④

2493 ***A**: 100 seeds, $4.10* ***B**: 250 seeds, $7.00*
***C**: 1,000 seeds, $24.25* ***D**: 5,000 seeds, $51.00*
***E**: 25,000 seeds, $190.00*

WHITE SUMMER ONIONS

Crystal White Wax (70 days) OP. Unlike most onions, these can be direct-seeded in spring with the peas. Then the 1 1/2" pearly white bulbs ripen with the peas for early summer baby onions or pickles. Orbs the size of ping-pong balls were ready to harvest on July 7 in central Maine. Resists PR. ②

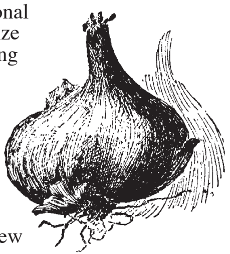
2444 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $4.50* ***C**: 1/2oz, $9.00*
***D**: 1oz, $13.50* ***E**: 4oz, $26.00* ***K**: 1#, $78.00*

White Wing (97 days) F-1 hybrid. These firm, almost perfectly round handsome one-pound bulbs with slender strong necks will boost almost anyone's mood. Trialer Donna Dyrek, who praises White Wing lavishly, has grown them even bigger, up to 1 1/2–2 lb. Very early and well adapted to our climate, some years Wing can be harvested as early as mid-late Aug. In cool seasons they stand till Sept. 1. Hard, pleasantly pungent and moderately sweet. Not a great keeper; with proper curing can last till the New Year. Day-neutral type, suitable for mid-latitude and northern areas. ④

2447 ***A**: 100 seeds, $4.50* ***B**: 250 seeds, $7.25*
***C**: 1,000 seeds, $24.50* ***D**: 5,000 seeds, $44.00*
***E**: 20,000 seeds, $166.00*

SHALLOTS *A. cepa* (aggregatum group)

Matador - Organic (105 days) F-1 hybrid. A traditional French storage shallot, nicely divided with pretty bronze skins. Prevailed in our 2021 and 2022 field trials, drying down very early. Keeps though winter and even into spring with good storage conditions. ④ **NEW!**



2436 ***A**: 75 seeds, $3.50*
***B**: 150 seeds, $5.25*
***C**: 300 seeds, $10.25*
***D**: 750 seeds, $23.50*
***E**: 3,000 seeds, $72.00*

Val-aux-Vents - ECO (105 days) OP. An exciting new French shallot from Canadian plant breeder Richard Favreau of Val-aux-Vents Farm in the Saint-Valérien region of Québec. Richard's passion and many years of work selecting and evaluating alliums shines through in this variety. Handsome golden-bronze 1 1/2–2" bulbs uniformly divide into triples and quadruples, store into the spring, and have a luxurious caramel flavor. Resounding praise when we sautéed them in butter in the warehouse kitchen! Wowed us at every point in the season. Donna Dyrek's were out of the ground curing on September 10 from an April 13 start. About 278 seeds/g. ☙2022 Ω ①

2440 ***A**: 0.5g, $4.25* ***B**: 1g, $7.15* ***C**: 2g, $10.25*
***D**: 4g, $15.25* ***E**: 14g, $44.00*

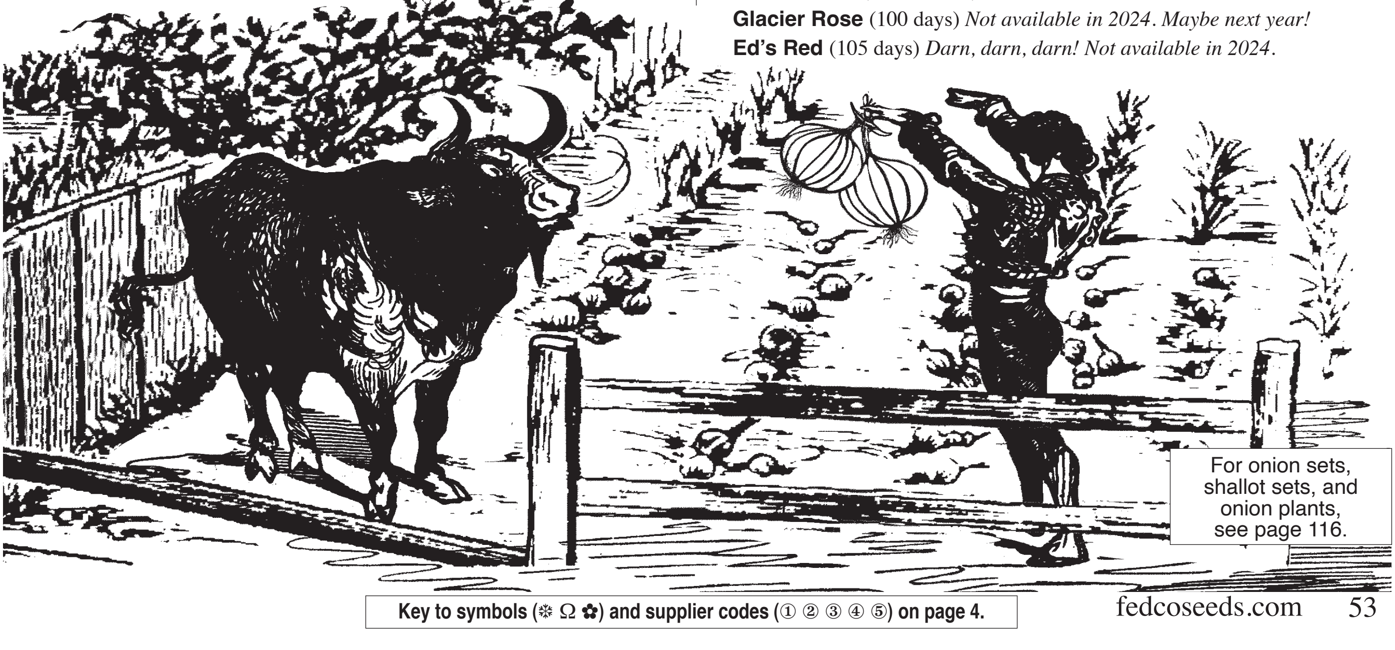
Camelot (110 days) F-1 hybrid. Camelot, the darkest red-skinned variety available from seed, satisfies with smooth onion-y taste. When divided, bulbs are 1–1 1/2" across and 2" long. Donna Dyrek's were out of the ground curing on Sept. 20 from an April 6 start. Can store till April or beyond. Adapted to 40-55° latitudes. About 275 seeds/g. ④ *Check website for availability.*

Crème Brûlée (110 days) F-1 hybrid. This *échalion*—also called bottle or banana shallot—has lustrous pinky-bronze skin and elongated 4–5" bulbs that are easy to peal and slice. Tender, sweet and slightly citrusy when raw, and with butter in a skillet they caramelize as perfectly as the golden crust of the fanciest crème brûlée. Easy to grow—a great option for market growers and home gardeners alike. Stores beautifully into April. In 2021 this became the first shallot ever to receive an AAS Winner designation. ④

2438 ***A**: 75 seeds, $5.50* ***B**: 150 seeds, $8.00*
***C**: 300 seeds, $13.50* ***D**: 750 seeds, $24.00*
***E**: 3,000 seeds, $70.00*

Glacier Rose (100 days) *Not available in 2024. Maybe next year!*

Ed's Red (105 days) *Darn, darn, darn! Not available in 2024.*



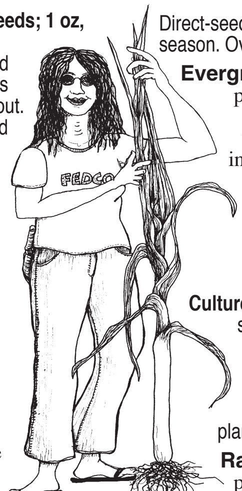
For onion sets, shallot sets, and onion plants, see page 116.

LEEKS *A. ampeloprasum* (porrum group)

- 1 gram packet about 240–360 seeds, 1/16 oz packet about 400–600 seeds; 1 oz, 6,400–9,600.

Culture: Start with onions and transplant out almost as soon as the ground can be worked. Set 6–12" apart in trenches in well-dug beds with generous quantities of organic matter. Irrigate seedlings whenever the topsoil dries out.

Summer leeks have tall shanks above ground and should be harvested before severe frosts. Hardier leeks have broader, shorter shanks and will hold till November. Leeks brought into the root cellar will survive almost all winter if heeled into soil.



SUMMER LEEKS

King Richard - Organic (75 days) OP. This distinctive refined early leek once again rules supreme—reselected and brought back to its elegant form with upright shanks a foot long to the first medium green leaves. Ready in late August and can withstand light frosts but should be harvested before those heavily frosted nights in late October. ① **BACK!**

2407 ***A**: 1/16oz, $3.50* ***B**: 1/8oz, $6.00*
***C**: 1/2oz, $13.00* ***D**: 1oz, $22.00*
***E**: 4oz, $62.00*

Lincoln (75 days) OP. A leek with a dual purpose, Lincoln may be sown thickly like scallions, harvested in 50–60 days and bunched for upscale direct markets and discerning chefs. Or, transplanted more conventionally, they may be allowed to grow another three weeks to full size. Shanks even longer and sleeker than King Richard's with delicate sweet leek flavor. Ready in late August, will withstand light frosts, but should be harvested before late October. ④

2408 ***A**: 0.5g, $4.75* ***B**: 1g, $8.50* ***C**: 4g, $30.00*
***D**: 14g, $58.00* ***E**: 28g, $110.00*

AUTUMN LEEKS

King Sieg - Organic (84 days) OP. Beth Rasgorshek of Canyon Bounty in Idaho crossed King Richard with Siegfried Frost to create a versatile stable cultivar that has some of the good attributes of both. Sieg appears to have inherited the most from Siegfried. Its shanks are intermediate between the long King Richard and the short Siegfried, about 6" long but with a wonderful 3" thickness for a wide edible area. It also has some of Siegfried's delightful blue-green coloration and delayed maturity. ❧2005. **OSSI** Ω ①

open source seed initiative

2411 ***A**: 1/16oz, $4.00* ***B**: 1/8oz, $6.00* ***C**: 1/2oz, $12.50*
***D**: 1oz, $18.00* ***E**: 4oz, $50.00*

Lancelot (90 days) OP. "Great quality, disease resistance and size," says Tom Vigue. A dependable heavy-yielding virus-tolerant bolt-resistant leek. Suitable for late-fall harvest and possible overwintering in climates warmer than ours. Uniform 12–14" shafts with good thickness. ④

2421 ***A**: 0.5g, $5.50* ***B**: 1g, $7.50* ***C**: 4g, $14.50*
***D**: 14g, $36.00* ***E**: 28g, $62.00*

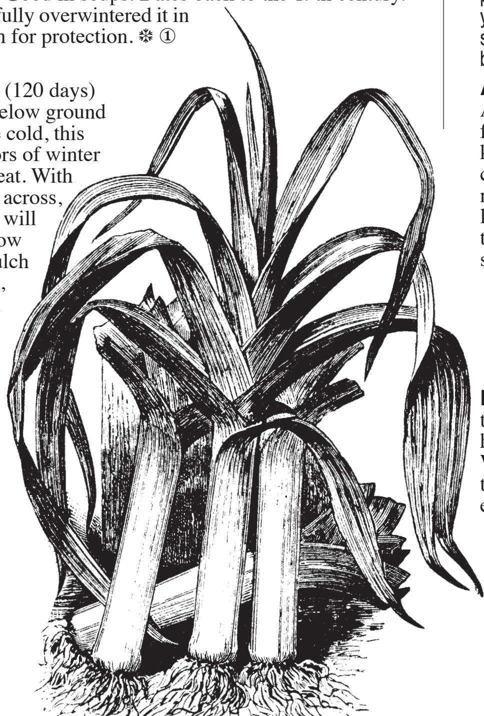
WINTER LEEKS

Bleu de Solaize - Organic (110 days) OP. This hard-to-find French heirloom is so-named because its dark green leaves sometimes develop a tinge of blue during cold spells. Selected by our growers for hardy fat medium-long shanks with mild flavor. Good in soups. Dates back to the 19th century. Trialer Donna Dyrek successfully overwintered it in Zone 4 with only straw mulch for protection. ❄ ①

2425 ***A**: 1/16oz, $4.50*

Siegfried Frost - Organic (120 days) Making much of its growth below ground where it is protected from the cold, this leek often withstands the rigors of winter to offer a delectable spring treat. With stalks growing as much as 4" across, there is plenty to enjoy. Most will survive winters with good snow cover if you hill them and mulch after the ground freezes. Alas, the recent prevalence of open winters with fluctuating temperatures and multiple freezes and thaws is making overwintering less of a sure bet. Although discouraging, this presents an opportunity for selection of plants that can face the swings of climate. ❄ ①

2426 ***A**: 1/16oz, $3.95*



SCALLIONS *A. fistulosum*

Direct-seed in spring or fall. For a steady market crop, seed every two weeks all season. Overwintered clumps can be divided and replanted the following spring.

Evergreen Hardy White (65 days) OP. Also known as Nebuka, a perennial bunching onion. Once your overwintered scallions develop seed stalks, cut the whole patch back to about 2" above the soil—they will re-grow tender scallions from the roots. A welcome treat in April, one of the first fresh foods. Heirloom from Japan originated in the 1880s. Resists PR and smut. About 13,400 seeds/oz. ❄ ④

2439 ***A**: 1/16oz, $3.15* ***B**: 1/8oz, $4.15*
***C**: 1/2oz, $6.95* ***D**: 1oz, $9.50*
***E**: 4oz, $20.00* ***K**: 1#, $66.00*

RAMPS *A. tricoccum*

Culture: Ramps are a native perennial of deciduous forests, growing best in cool shady areas with damp rich soil high in organic matter and calcium. Not for open-field conditions. Seed planted in spring might not germinate until the NEXT year. Mark and protect your patches well. Once established, ramps grow in close communities, strongly rooted just beneath the soil surface. Leaves appear in early spring. Harvest carefully with a sharp knife, cutting plants just above the roots. Disturb roots as little as possible.

Ramps (6-18 months) OP. Also called Wild Leeks. This bulb-forming perennial is a spring ephemeral. Their rapid rise as the darling of top chefs has led to overharvesting. Now considered a species of "special concern" for conservation in Maine and other states; in Québec commercial harvesting is banned. With patience and care you can sustainably grow and harvest your own woodland crop. Delectable pungent flavor, a mix of garlic and onion, is true wildwood fare—worth the long wait. Not a good germinator, often with latent dormancy; expect less than 50%. ②

2433 ***A**: 0.5g, $6.25* ***B**: 1g, $10.00* ***C**: 2g, $18.00*

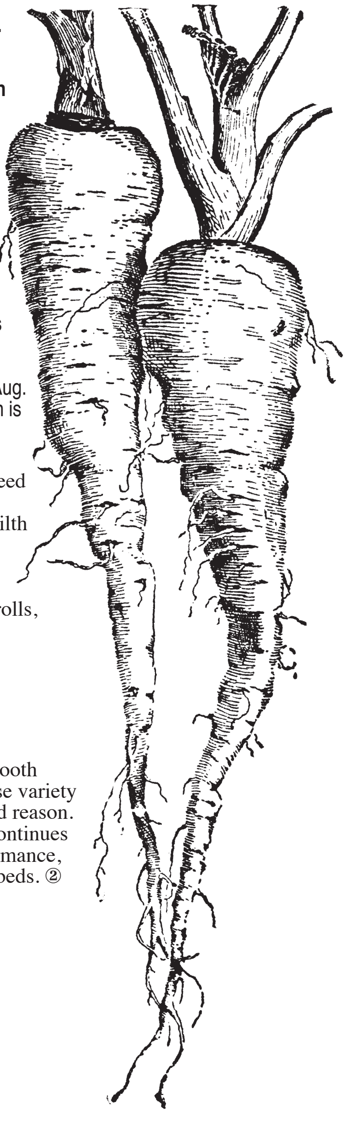
PARSNIPS

Pastinaca sativa

- About 5,600 seeds/oz.

- Days to maturity are from direct seeding.

Culture: Seed is short-lived; if you are planning to use old seed, germ test in paper towels before sowing. **Minimum germination soil temp 46˚, optimal range 55–77˚.** Slow to germinate (14–21 days). Prepare a deep seedbed and keep it moist with frequent watering until emergence. Sow about 1" apart in mid-spring. Thin to 2–3". Parsnips require a full growing season. Suitable for harvest after frost for late fall delights. Parsnips left to overwinter in the ground will nearly triple their fall sugar content. For the best early spring treats, harvest as soon as possible before the plants resume growth. Roots become woody as the plants re-grow. Save some plants for seed in year two. Plants will shoot up 6' before July-Aug. seed harvest. Homegrown parsnip seed often is better and more viable than any you can buy.



Andover - Organic (120 days) OP. Always a best-seller when we have the seed for this outstanding variety—an absolute knockout in our trials. Those with good tilth can anticipate consistent production of refined tapered cylindrical roots 12–14" long. Developed by UMinn. One of the best for grating and stuffing into eggrolls, strudels and veggie pies. ① **BACK!**

2306 ***A**: 1/8oz, $3.00*
***B**: 1/2oz, $8.00*
***C**: 1oz, $14.00*
***D**: 4oz, $48.00*
***E**: 1#, $175.00*

Harris Model (120 days) OP. Sweet smooth tapered roots average 10". This workhorse variety has long been a garden mainstay for good reason. We've sold it since our first year and it continues to look great in our trials. For best performance, especially in heavy soils, prepare raised beds. ②

2310 ***A**: 1/8oz, $2.75*
***B**: 1/2oz, $3.50*
***C**: 1oz, $5.00*
***D**: 4oz, $8.00*
***E**: 1#, $21.00*

PEAS

Pisum sativum

- 2 oz packet sows 25 ft; 1 lb, 200 ft. About 160 seeds/2 oz pkt.

- Days to maturity are from direct seeding.

Culture: Sow as early as ground can be worked for best yields. **Minimum germination temperature 40°; optimal range 50–75°.** Peas are legumes with moderate fertility requirements. Avoid excess nitrogen: they can fix their own. Use inoculant at planting (see page 9 or 131). They prefer cool, moist weather and dislike dry heat; not well adapted to southern climates.

All peas produce more when staked; varieties over 2$^1/_2$' must be supported. Use either Trellis Netting (page 142) or chicken wire. Install support at planting time to avoid disturbing seedlings. Plant 1$^1/_2$" apart on each side of supports in double rows. Set supports for rows 3' apart (5' for tall varieties).

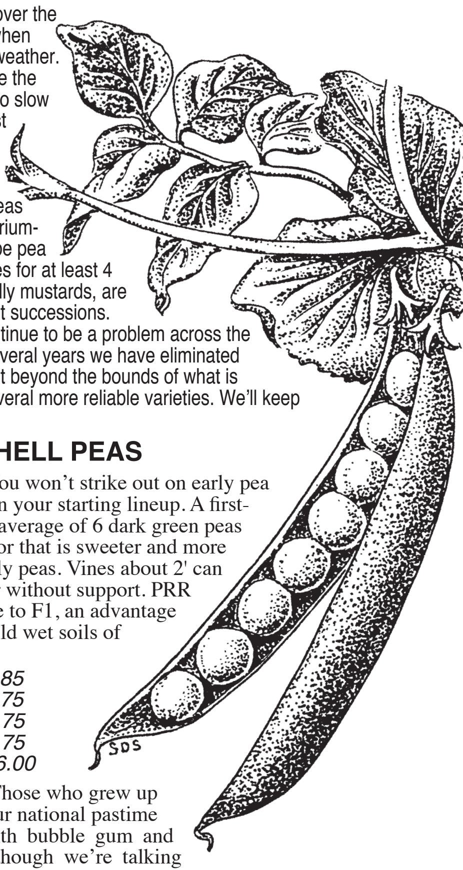
Greens of young pea plants are good in salad mix or lightly cooked. Remove tendrils (they tend to be coarse).

Diseases:

CTV	Curly Top Virus	PM	Powdery Mildew
DM	Downy Mildew	PPR	Pythium Root rot
F	Fusarium	PSV	Pea Streak Virus
PEMV	Pea Enation Mosaic Virus	W	Common Wilt race 1

Powdery mildew looks like someone sprinkled talcum powder over the vines. It spreads rapidly when picking occurs in hot dry weather. Pick in early morning while the dew is still on the foliage to slow its spread and ensure best flavor. Fusarium causes vines to dry out, yellow, then brown and die. As a preventive, always sow peas on well-drained soil. Fusarium-infested soils are said to be pea sick. Rotate out of legumes for at least 4 years. Brassicas, especially mustards, are good disease-suppressant successions.

Off-types in peas continue to be a problem across the industry. Over the past several years we have eliminated some old favorites that got beyond the bounds of what is acceptable and added several more reliable varieties. We'll keep working at it!



SHELL PEAS

Strike (52 days) OP. You won't strike out on early pea sales with this winner in your starting lineup. A first-early shell pea with an average of 6 dark green peas in 2$^3/_4$" pods and a flavor that is sweeter and more complex than other early peas. Vines about 2' can be grown either with or without support. PRR tolerance and resistance to F1, an advantage when planting in the cold wet soils of northern spring. ②

720 *A: 2oz, $3.85*
B: 8oz, $7.75
C: 1#, $10.75
D: 5#, $34.75
E: 10#, $56.00

Topps (56 days) OP. Those who grew up during the heyday of our national pastime associate the name with bubble gum and baseball cards. Even though we're talking peas, not hardball here, we still appreciate Topps. In the 2015 season in Zone 6, Topps, given ample rainfall in late spring, notched about 5–7 peas per pod. Not bad for a short vine (22–23") that bursts onto the second-early scene with a concentrated set of very dark blunt 3$^1/_2$" pods. In Central Maine second early meant July 10 ripeness, whereas in W. Tisbury, MA, Tom Hodgson and Christine Gault shelled their first Topps on June 8 and won a First Peas contest. Production is ample but brief; within a week the plants are all picked out. As for the flavor? "Makes your mouth water for more," said one taster. Others compared it closely with Early Frosty but Topps is easier to tell maturity and to shell. Resists F1. ②

727 *A: 2oz, $3.75* *B: 8oz, $7.75*
C: 1#, $11.00 *D: 5#, $36.00*

Emerald Archer - Organic (65 days) OP. What can scale a pea fence with a plethora of tendrils, pump out a super abundance of peas per pod midseason, all the while delighting a six-year-old? This afila-type pea is quite productive, setting in pairs and having 10 peas to the pod. Not an off-type among them, and tasty, too. The upright habit of the 36–42" plant makes for easy picking. And gardening grandson Evan declared these afila tendrils were the best in the patch; the adults concurred. Sure to hit the mark. ②

758 *A: 2oz, $3.95* *B: 8oz, $8.95*
C: 1#, $15.75 *D: 5#, $53.00*

Green Arrow (65 days) OP. The pea preferred by commercial growers, always on target for heavy yields. Sets the standard for midseason varieties. Long pods with up to 10 peas per pod (more typically 7–8) on vines up to 3'. Seems to withstand miserable and extreme weather better than other varieties. Easy-to-pick pods tend to set in pairs at the top. Tolerant to F, DM, CTV, W. *May have up to 11% taller off-types.*

Green Arrow ①

760 *A: 2oz, $3.85* *B: 8oz, $7.25* *C: 1#, $10.25*

Green Arrow - Organic ①

761 *A: 2oz, $4.15* *B: 8oz, $9.45* *C: 1#, $15.00*
D: 5#, $49.00 *E: 10#, $85.00*

Perfection 326 (66 days) OP. These 3–4' vines show great health and vigor that translated into an abundant crop of 3$^1/_2$" pods, usually with 7–8 peas each. They outyielded the so-called Maestro strain we trialed alongside them. They hold color and texture well, resist wilts and drought, and are extraordinarily sweet and meaty. *Has a small percentage of smaller off-types.* ③

762 *A: 2oz, $2.85* *B: 8oz, $6.65*

Miragreen - Organic (68 days) The darkest-green pods we've ever seen, Miragreen's rich color is matched only by the flavor of the peas themselves. As a freezer pea it has no equal. Prolific, with an average of 8.3 peas per pod. As if this weren't enough, Miragreen has some resistance to heat and drought and copes well with our warm Julys. The 4' vines require staking. ① **BACK!**

772 *A: 2oz, $6.00* *B: 8oz, $18.00* *C: 1#, $30.00*
D: 10#, $190.00 *E: 25#, $400.00*

Lincoln (70 days) OP. This old English favorite is one of the sweetest peas and the best for fresh garden grazing. First offered in America by J.M. Thorburn in 1908, the year before the first Lincoln penny. Vines up to 3' bear 3–3$^1/_2$" slender curved pods with heaviest production in mid-July. Consistently 6–8 peas per pod. In 2004 our 60' row produced an all-time record 33 lb. Lincoln loves cool rainy Julys but produces much less when July is hot and dry. Susceptible to PM and other diseases so a good choice only if you can get on your ground in early spring. Tolerant to W. ③④⑤

781 *A: 2oz, $3.00* *B: 8oz, $7.00* *C: 1#, $10.50*
D: 5#, $31.00 *E: 10#, $53.00*

Alderman or **Tall Telephone** (75 days) OP. All-America winner Mr. Big got the hype, but failed to supplant this old-time favorite as our #1 tall pea. In our trial, Alderman topped Mr. Big in peas per pod (7.65 vs. 6.94); in total yield (38 vs. 28 lb per 100 row feet); and in flavor. Alderman boasts vines of 5–6' or more under fertile conditions; needs strong staking and frequent picking. *Please note:* The pods of this old-fashioned pea start out flat like snow peas, however they are not edible. Wait for the peas to fill out pods and then shell them. Introduced by renowned pea breeder Thomas Laxton around 1891 and first sold by Burpee in 1901. Resistant to W. ④

792 *A: 2oz, $3.50* *B: 8oz, $8.00* *C: 1#, $11.50*
D: 5#, $36.00 *E: 10#, $59.00*

Saving Pea Seed Is Easy! Leave pods of spring-planted peas on the vine to dry. Hand shell, or stomp pods on a tarp. To ensure true-to-type seed, separate pea varieties by 30 feet. See page 38 for more about seed saving.

SNOW PEAS

Harvest snow peas before pods fill out.

Oregon Giant (60 days) OP. This Oregon State University release bred by Dr. James Baggett is our most popular snow pea. A giant selection from a giant of a breeder, Oregon Giant is distinguished for its sweet rich green fat wide 4–5" pods good for stir-fries, steaming and eating out of hand. Retains sweetness so may be picked a little plumper than the thin-podded varieties. We recommend staking the 3–4' vines. Resistant to PEMV, PM and F1.

Oregon Giant ①②

818 A: 2oz, $3.50 B: 8oz, $7.00 C: 1#, $10.00
D: 5#, $42.00 E: 10#, $70.00

Oregon Giant - Organic ①

819 A: 2oz, $4.15 B: 8oz, $10.75 C: 1#, $17.25
D: 5#, $62.00 E: 10#, $108.00 K: 25#, $240.00

Green Beauty (60 days) OP. Thanks to superb breeding by genius Alan Kapuler, revered by his friends as "Mushroom," we get to enjoy this outstanding purple-flowered snow pea. Its lush foliage and astounding production made a huge impression in our trials. Long 5" light green pods, a few with pink blush, ridiculously tasty even when filled out. Stake this rampant beauty; it can grow 7–8' vines. *Has a small percentage of snap pea off-types.* **Breeder Royalties.** ②

820 A: 1oz, $5.50 B: 8oz, $20.00
C: 1#, $35.00 D: 5#, $130.00

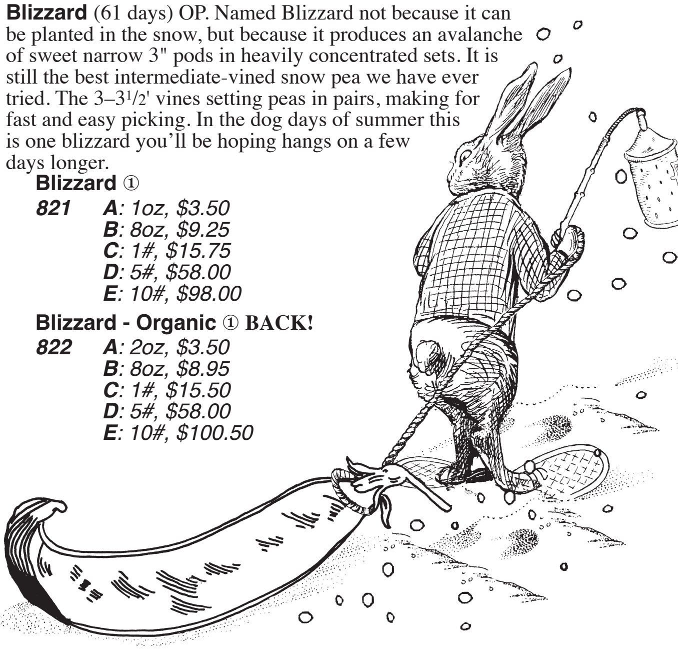
Blizzard (61 days) OP. Named Blizzard not because it can be planted in the snow, but because it produces an avalanche of sweet narrow 3" pods in heavily concentrated sets. It is still the best intermediate-vined snow pea we have ever tried. The 3–3½' vines setting peas in pairs, making for fast and easy picking. In the dog days of summer this is one blizzard you'll be hoping hangs on a few days longer.

Blizzard ①

821 A: 1oz, $3.50
B: 8oz, $9.25
C: 1#, $15.75
D: 5#, $58.00
E: 10#, $98.00

Blizzard - Organic ① **BACK!**

822 A: 2oz, $3.50
B: 8oz, $8.95
C: 1#, $15.50
D: 5#, $58.00
E: 10#, $100.50



Oregon Sugar Pod II (62 days) OP. Dr. Baggett's biggest claim to fame and still the most popular edible-podded pea in the world (although our customers greatly prefer his Oregon Giant). His short-vined snow pea from Oregon State University features 4" pods on 2–2½' vines. Difficult to pick because fruit tends to set within foliage. Good choice in sandy soils or under dry conditions. Baggett left a lasting legacy of superior varieties and support for open-source plant breeding. Tolerant to F, PM, PEMV, PSV, resistant to W, it incorporated more disease tolerance than other pea varieties of that era.

Oregon Sugar Pod II ②

826 A: 2oz, $3.75 B: 8oz, $7.75 C: 1#, $11.25
D: 5#, $31.00 E: 10#, $53.00

Oregon Sugar Pod II - Organic ② **NEW!**

827 A: 2oz, $4.00 B: 8oz, $9.50 C: 1#, $13.50
D: 5#, $48.25 E: 10#, $71.00

Sumo - Organic (66 days) OP. The Sumo cum laude of snow peas, much revered by Pam Dawling and us as well. Sumo is the best purple-flowered snow pea we've ever had. Its light lime-green pods are larger and fatter than Mammoth Melting Sugar's and really sweet right off the vine as well as in stir-fries. Vines grow 4–5', must be staked. Despite its name, Sumo is not from Japan but from Australia and you won't have to wrestle its abundant pods off the vine because they set high and pick readily. ①

833 A: ½oz, $3.95 B: 2oz, $9.95 C: 8oz, $25.50
D: 1#, $44.00 E: 5#, $140.00

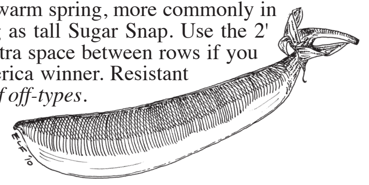
Mammoth Melting Sugar (72 days) OP. The standard climbing snow pea. Vines grow 5–7'. Very heavy yields of 4–5" pods. Continues to produce if kept picked provided powdery mildew does not strike. Very sweet eaten raw as well as sautéed. Heirloom predates 1906. We had dropped this variety because it had become way too variable; it is now to good form. ②

842 A: 2oz, $3.25 B: 8oz, $6.75 C: 1#, $9.50
D: 5#, $30.00

SNAP PEAS

Don't pick snap peas too soon: snaps taste sweetest when completely filled out.

Sugar Ann (58 days) OP. Sweetest of the dwarf snap peas and popular both with home gardeners and commercial growers. The earliest snap pea, ripening in Central Maine around June 20, earlier in warmer areas, when customers are still excited about peas and greedy to purchase them in quantity. Alan LePage says good timing is crucial for optimal root development, the key to high yields. If you sow early into cool soil with good organic matter and your soil doesn't heat up too fast, they produce bushels and bushels well into July. He has sown as early as Mar. 18 in a warm spring, more commonly in early April. Not as heavy-yielding as tall Sugar Snap. Use the 2' vines to start the season. Allow extra space between rows if you do not stake. 1983 Silver All-America winner. Resistant to W. *Still has a small percentage of off-types.*



Sugar Ann ①

882 A: 2oz, $3.50

Sugar Ann - Organic ①

883 A: 2oz, $4.00 B: 8oz, $10.00 C: 1#, $14.00
D: 5#, $58.00 E: 10#, $90.00 K: 25#, $210.00

Mega - Organic (64 days) OP. Vigorous 3' vines are heavily laden with slightly curved crisp juicy 4" snap pods that reach maximum sweetness when they are really chubby. Between Sugar Ann and tall Sugar Snap in vine height and maturity, but sturdier vines than either. First offered by Territorial. We thank Rebecca Slattery of Persephone Farm in Indianola, WA, for providing us with stock seed. In her words, "Though not as sweet as Sugar Snap, their shorter vines, productivity and delicious pea flavor put them in a class of their own. As a market gardener I find that their heft helps us collect a huge poundage in a very short time." Resists PEMV. ① **BACK!**

884 A: 2oz, $4.15 B: 8oz, $9.25 C: 1#, $14.25
D: 5#, $53.00 E: 10#, $89.00 K: 25#, $210.00

Amish Snap Pea (62 days) OP. Before Drs. Lamborn and Parker bred the now-epic Sugar Snap, lesser-known precursors called *mangetout* ('eat all' in French) peas and "butterpeas" were curiosities of the 18th and 19th c. Whether derived from those older stocks or from an errant but similar shell-snow pea cross as Sugar Snap, this tall and tasty heirloom has long been enjoyed in Amish communities. Vines grow quickly to 5–6' tall, the white flowers set slender and tender 3" sweet snaps. Beyond the pleasing juicy flavor, the earliness of Amish surprised us in our 2018 trial, beating shorter Cascadia to the first picking! While Cascadia's ongoing yield eclipsed Amish eventually, we found Amish delivers the "tall taste" that only full-height snaps have. For best eating, pick Amish when not fully plump and before the green pods start turning dusky grey. ②

885 A: 2oz, $4.85 B: 8oz, $15.35
C: 1#, $24.25 D: 5#, $90.00

Sugar Lode - Organic (65 days) OP. The first success of our pea-growing program. We named Sugar Lode for its tremendous yields borne on 3' vines. Although the pods are slow to sweeten, they develop a good pea flavor which becomes more sugary as they fill. Stand well in heat and can be used for late crops. ① **BACK!**

886 A: 1oz, $4.25

Cascadia (65 days) OP. It's a snap to grow Cascadia. Ripening about a week later than Sugar Ann on slightly taller (2½') vines, Cascadia sends a cascade of 3" pods, longer and darker green than Ann's and equally sweet. Deborah Dorland of Salem, SC, found them to be the best of several snap pea varieties in her southern locale. David Nonnenmacher of Hawley, PA, reports "great yield on a medium-height plant; can never have too many of these." Developed by Dr. Baggett, tolerant to F & PM, and the first pea bred to be resistant to PEMV. *May have up to 5% off-types.*

Cascadia ②③

888 A: 1oz, $2.85 B: 8oz, $7.85 C: 1#, $11.65
D: 5#, $36.25 E: 10#, $63.00 K: 25#, $138.00

Cascadia - Organic ②

889 A: 1oz, $3.85 B: 8oz, $9.35 C: 1#, $14.25
D: 5#, $57.00 E: 10#, $103.00

Tendersweet (65 days) *Not available in 2024. Crop failure.*

Super Sugar Snap (66 days) *Dropping all ⑥ suppliers. See page 5. Try **893** Sugar Snap!*

Sugar Snap (68 days) OP. One of the very best raw treats in the garden, far tastier than the dwarf varieties, although more work to grow. Tall 5–7' vines need strong stakes. Pods reach superb sweetness only when completely filled. Then they are incomparable. Always a top seller, this breakthrough variety was ten years in the making after breeder Calvin Lamborn made his first cross in 1969. Upon its release Sugar Snap was awarded the coveted AAS Gold Medal and later voted the #1 all-time AAS. The late Lamborn was known as the father of the snap pea. Resistant to W, very susceptible to PM. *May have up to 11% snow pea off-types.*

Sugar Snap ①

892 A: 2oz, $3.75 B: 8oz, $7.25 C: 1#, $11.25
D: 5#, $39.00 E: 10#, $71.00

Sugar Snap - Organic ①

893 A: 2oz, $4.15 B: 8oz, $9.50 C: 1#, $15.75
D: 5#, $67.00 E: 10#, $104.00 K: 25#, $230.00

Legume inoculant, see page 9.

PEPPERS

Capsicum annuum

- Days to full-color maturity are from transplanting date.

Culture: Start indoors in March or April. **Minimum germination soil temperature 60˚, optimal range 68-95˚.** Set out in June. Very tender, will not tolerate frost, dislike wind, will not set fruit in cold or extremely hot temperatures or in drought conditions. Black plastic (page 141) and row cover (page 142) highly recommended. Row cover improves fruit set in windy spots. Pick first green peppers when they reach full size to increase total yield significantly. Green peppers, though edible, are technically not ripe. Peppers ripen to red, yellow, orange.

Diseases:

BLS	Bacterial Leaf Spot	CMV	Cucumber Mosaic Virus
TMV	Tobacco Mosaic Virus		

SWEET RED BELLS

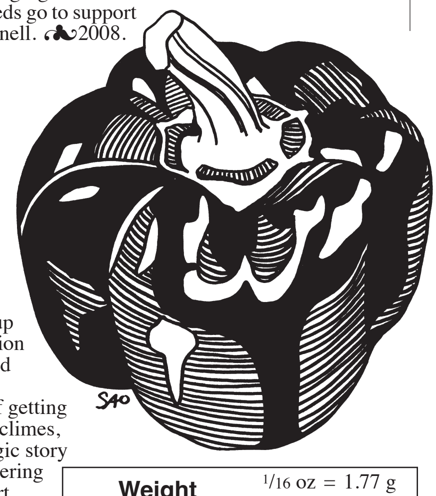
About 110–175 seeds/g.

Takii's New Ace (60 days) F-1 hybrid. A cinch to grow in the North. CR, no pepper pro, reported counting 54 full-sized and 12 baby peppers on his 11 plants on Sept. 8, 2014, a good pepper year. Resists blossom drop even in adverse weather so that almost every flower produces. Fruits thin-walled, elongated, not blocky, turn red early, good for the home garden. Takii's is an improvement on the old strain, producing large pointy peppers, just not classic blocky 4-lobed commercial peppers. Janine Welsby responds, "Don't damn them with faint praise! Still the only pepper that consistently ripens gorgeous red bells for us." ⑤

3701 ***A**: 20 seeds, $3.75* ***B**: 60 seeds, $6.00*
***C**: 200 seeds, $11.50* ***D**: 500 seeds, $22.50*
***E**: 1,000 seeds, $38.00*

Peacework - Organic (65 days) OP. An exciting early red bell pepper bred by Molly Jahn and George Moriarty with King of the North and Early Red Sweet in its parentage. Each small plant in our trial vine-ripened about 6 peppers with medium-thick walls, good flavor and full-bodied sweetness. A product of farmer-breeder collaboration starring CSA-grower Elizabeth Henderson and her team at Peacework Farm in cooperation with the Organic Seed Partnership, the California Pepper Commission and university breeders, Peacework is a stabilized open-pollinated variety. This improved production has better leaf cover and looked gorgeous in the field. Seed is sold under license and a portion of the proceeds go to support public vegetable breeding at Cornell. ❧2008. **Breeder Royalties.** ① **BACK!**

3704 ***A**: 0.2g, $3.45*
***B**: 0.4g, $4.95*
***C**: 1g, $6.75*
***D**: 2g, $10.95*
***E**: 4g, $16.50*



Mountaineer - ECO (68 days) OP. When asked about the name, breeder Will Bonsall said, "The original Mountaineer pepper was invented for my future-fantasy novel *Through the Eyes of a Stranger*. When I actually came up with a variety that fit the description (basically earliness), I just decided to give it that name." Fantasy no more! If you've ever despaired of getting a ripe sweet pepper in these cold climes, Mountaineer will rewrite that tragic story with its prolific yields of long tapering 2 1/2x4" red sweet peppers on short stocky plants. Regionally adapted and tasty, too! **Breeder Royalties.** ①

3709 ***A**: 0.5g, $3.65*
***B**: 1g, $4.95*
***C**: 2g, $7.75*
***D**: 4g, $13.00*
***E**: 28g, $59.00*

Weight equivalents

	1/16 oz = 1.77 g
	1/8 oz = 3.55 g
	1/4 oz = 7.09 g
1 gram = .035 oz	1/2 oz = 14.2 g
3 grams = .106 oz	1 oz = 28.4 g
6 grams = .212 oz	4 oz = 113.5 g
24 grams = .851 oz	1# = 453.6 g
120 grams = 4.24 oz	2.2# = 1000 g

Lady Bell (68 days) F-1 hybrid. An early elongated bell with 3–4 lobes that we chose as a replacement for North Star. Fruits ripen from rich green to attractive bright red. A good producer of 3x5" bells, juicy and sweet with a hint of spiciness. Even in cool conditions, each plant sets 3–8 fruits. Developed by Harris. ⑤

3710 ***A**: 20 seeds, $3.95*
***B**: 60 seeds, $8.95*
***C**: 200 seeds, $22.00*
***D**: 500 seeds, $46.00*
***E**: 1,000 seeds, $74.00*

King of the North - Organic (70 days) OP. A good choice if you want early marketable blocky peppers. Back in the late '80s when Seed Savers Exchange co-founder Kent Whealy keynoted at the Common Ground Fair, we asked him to suggest a pepper that would ripen in the North. His suggestion was King, and it has been our most popular OP bell ever since. Prone to blossom-drop in heat. ①

3713 ***A**: 0.2g, $2.85*
***B**: 0.4g, $3.35*
***C**: 1g, $5.15*
***D**: 2g, $8.95*

Revolution (72 days) F-1 hybrid. The political revolution is going to take a lot longer to mature than this pepper. This fancy quality sweet bell pepper allows CR to have a red September and Donna Dyrek, a zone farther north, a red October. Juicy and delicious, it boasts the stoutest square walls imaginable. Superb yields of "nice hefty thick-walled fruits," says Jason Kafka, some in excess of 1 lb. Elaine Carlson relates, "I finally had success growing good sweet peppers 12–14 oz… No more thin-walled peppers for me." Altoon Sultan grew Revolution in Vermont for the first time in 2021 and reported she was "swimming in peppers from just a few plants." Expensive seed. Resists BLS, tolerant to CMV. ⑤

3716 ***A**: 20 seeds, $5.95* ***B**: 60 seeds, $13.75*
***C**: 200 seeds, $35.00* ***D**: 500 seeds, $75.00*
***E**: 1,000 seeds, $122.00*

Staddon's Select - Organic (74 days) OP. This large blocky market-type pepper produces good-sized glossy dark green 3–4 lobed peppers on tall bushy plants, even in adverse conditions. Worthy of consideration except in very cold climates. ① **BACK!**

3725 ***A**: 0.2g, $2.45* ***B**: 0.4g, $3.15* ***C**: 1g, $5.50*
***D**: 2g, $7.95* ***E**: 4g, $12.00*

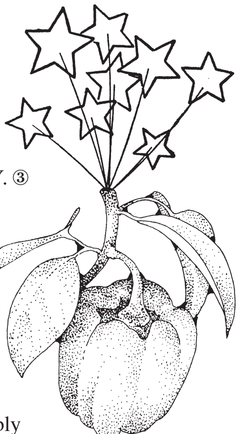
SWEET BELLS of Other Colors

Gilboa - Organic (66 days) F-1 hybrid. Our favorite blocky **orange** bell pepper. Gilboa is loaded with thick-walled crunchy squat bells, as many as a dozen per plant, with an engaging fruity flavor. A prolific colored Cal Wonder–type adapted to the North, even though bred in Israel by the Hazera youth association. Early, ripening in Zone 4 Hartland, ME, around the first of September. ③

3706 ***A**: 20 seeds, $3.15* ***B**: 60 seeds, $6.50*
***C**: 200 seeds, $14.75* ***D**: 500 seeds, $29.50*
***E**: 1,000 seeds, $51.00*

Golden Star (72 days) F-1 hybrid. With its large 4-lobed 4" glossy thick-walled blocky **yellow** peppers, this Star filled a gap in our selection admirably. On Sept. 26 one plant sported 7 fruits, and another, 10. Our trialer describes them as "nice, sweet and crispy." Plants boast generous leaf canopies. Donna Dyrek started harvesting ripe ones as early as mid-August. Resists potato virus Y. ③

3718 ***A**: 20 seeds, $3.35*
***B**: 60 seeds, $5.45*
***C**: 200 seeds, $13.75*
***D**: 500 seeds, $24.50*
***E**: 1,000 seeds, $39.00*



Purple Beauty - Organic (74 days) OP. Tom Vigue asserts that this Beauty "germinates with more vigor than any other pepper," and 18–20" plants produce good yields of blocky 3x3" fruits that ripen from **purple to green to deep red** as they mature. Aptly named, the fruits are incredibly striking in their purple phase. "Year after year it has great flavor and great beauty in all stages," affirms Vigue. Purple peppers reveal green interiors when sliced, and turn all-green when cooked. Trialers noted that this organic production was loaded with peppers while the plants from conventionally grown seed were not. ①

3723 ***A**: 20 seeds, $2.95* ***B**: 60 seeds, $4.95*
***C**: 200 seeds, $7.85* ***D**: 500 seeds, $19.95*
***E**: 1000 seeds, $30.00*

more SWEET BELLS of Other Colors

Flavorburst (75 days) F-1 hybrid. Citrus flavor comes to the world of sweet peppers! A Burpee taste-test winner, the 4–6" blocky bells begin the light green color of Granny Smith apples and ripen to a lovely shade of **goldenrod**. Thick-walled, crisp and juicy, the expected peppery bite overlaid with a zesty surge of lemon. Great appetizers, salad enhancers or stuffers. Tends to wedge its fruits into branches making it hard to harvest quickly without damaging the plant. ④

3729 ***A**: 20 seeds, $5.20*
***B**: 60 seeds, $11.95*
***C**: 200 seeds, $28.00*
***D**: 500 seeds, $53.00*
***E**: 1,000 seeds, $95.00*

Goldrush Golden Eclat - Organic (90 days) OP. Very blocky 4½x4½" thick-walled **yellow** fruits each weigh about ¾ lb. Sturdy 2½x2' plants bear 8–10 of these whoppers—use tomato cages or other staking to prevent plants from toppling or splitting under the strain. In 2022's drought followed by heavy rains, unstaked plants were especially vulnerable. Peppers will easily store unrefrigerated until Thanksgiving, maybe beyond. Great roasted and can be frozen that way. Thick walls mean they also freeze well raw as pepper shingles. No disease problems. ♣2022. **Breeder Royalties. OSSI** applied for. ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

I really like fedco seeds. =)
– Rosa (age 11) from Barryton, MI

Chocolate Cake - ECO (90 days) OP. In these times of gluten, dairy and sugar avoidance, here's a Chocolate Cake everyone can enjoy. In taste tests this **rich reddish brown** 3½x3½" blocky thick-walled pepper had great sweetness and flavor. Best of all, if you can't wait for them all to ripen, you'll find that as a green pepper Chocolate Cake is as meaty, sweet, delicious and flavorful as many other types of fully ripe peppers. Breeder Doug Jones continues to select this pepper for earliness, yield and flavor—icing on the cake! **Breeder Royalties.** ①

3737 ***A**: 0.2g, $3.45* ***B**: 0.4g, $4.50*
***C**: 1g, $7.50* ***D**: 2g, $12.75*

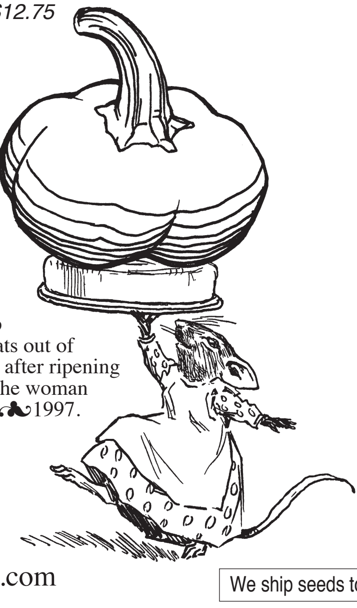
Corona - Organic (90 days) OP. The word *corona*—'crown' in Spanish—has taken on an unfortunate new meaning. Don't hold it against this healthful green-to-**orange** sweet bell pepper, worth the three-month wait to fully ripen, at which point the stunning color is rivaled only by its sweet flavor. The large thick-walled 3½" blocky fruit with 3–5 lobes is easy to harvest and can attain a weight of up to half a pound. Productive, too! Good foliage cover on 4' plants helps to prevent sunscald. TMV resistant. ①②

3739 ***A**: 0.2g, $3.95* ***B**: 0.4g, $5.45*
***C**: 1g, $8.50* ***D**: 2g, $12.75*
***E**: 4g, $16.50*

CHEESE

Klari Baby Cheese - Organic (65 days) OP. Also known as Golden Delicious Apple Pepper. From Hungary, a Fedco introduction to the U.S. Wini Noyes says it's a good choice "for the pepper-challenged" to grow. Cheese peppers are flattened and with a soft sweet mild core. Shaped like 3" Rouge Vif d'Étampes pumpkins (page 72), the squat thick-walled 4 oz fruits were unlike anything we'd ever tried. We couldn't stop munching these delicious summertime treats out of hand. Traditionally they are pickled whole after ripening from white to yellow to red. Named after the woman who maintained this heirloom seed stock. ♣1997. 115-125 seeds/g. ①

3738 ***A**: 0.5g, $3.50*
***B**: 1g, $4.50*
***C**: 2g, $7.25*
***D**: 4g, $12.50*
***E**: 28g, $49.95*

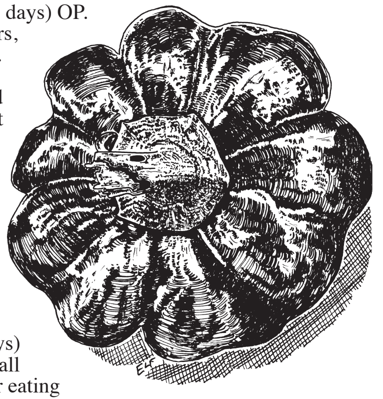


PIMIENTOS

About 115–125 seeds/g.

Sweet Pimiento - Organic (80 days) OP. Early and prolific even in bad years, with an enjoyable rich fruity taste. In a difficult season we harvested several of these 4" squat fluted red fruits. More skilled growers report 15–20 peppers per plant. This year's seed grown right here in Maine continues its cold-climate adaptation. ①

3740 ***A**: 0.2g, $2.95*
***B**: 0.4g, $3.95*
***C**: 1g, $6.95*
***D**: 2g, $8.95*
***E**: 4g, $13.00*



Amish Pimiento - ECO (85 days) OP. Pimientos are the sweetest of all peppers—everybody's favorite for eating out of hand—and Amish rises to the top of that sweetness scale. The problem with growing seed for Amish Pimiento is that you have to restrain yourself from eating the seed crop. Blame it on the rich sweet fruity taste of these 2x4" squat ribbed fleshy red fruits, productive and fairly early, thick-walled and crunchy. ①

3741 ***A**: 0.2g, $2.75* ***B**: 0.4g, $4.75*
***C**: 1g, $6.95* ***D**: 2g, $9.95*

Tangerine Pimiento - ECO (85 days) OP. In the words of one customer, these beautiful orange pimientos are a joy to harvest, standing out "just like little lights." Sweet and juicy, great for eating fresh or roasting. Plants are modest in height and bushy, yet capable of ripening more than a dozen squat 2–3" round to slightly flattened 4–5 lobed thick-walled fruits in a good year. "They might have a small body, but they carry a big pizazz," opines Anne Elder. ①

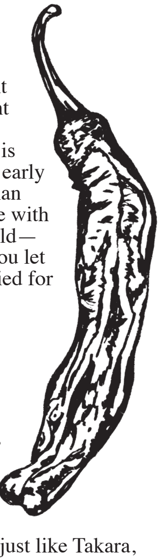
3743 ***A**: 0.2g, $3.45* ***B**: 0.4g, $4.75* ***C**: 1g, $6.95*
***D**: 2g, $8.95* ***E**: 4g, $14.00*

ELONGATED PICKLERS, FRYERS & ROASTERS

About 110–210 seeds/g.

Takara Shishito (60 days) F-1 hybrid. Nikos was once known as The Pepper Lady—she has her standards. When she first encountered these small thin-walled second-cousins-twice-removed of Revolution peppers, she thought "Why bother?" Fedco staffer Emily Skrobis set her straight when they judged peppers at Common Ground Fair. She loves this pepper type as early, easy and abundant. Takara is all that—with dozens of wrinkled thin-walled fruits borne early on well-branched plants. Pick when light green and less than 3" long, and blister them whole in a hot oiled skillet. Serve with flaky salt and eat everything but the stem. Most will be mild—the occasional green pepper, around 10%, will be hot. If you let them grow to full 1x3½" size, they turn red and can be dried for hot crushed red pepper. ⑤

3750 ***A**: 10 seeds, $4.95*
***B**: 50 seeds, $10.95*
***C**: 200 seeds, $30.00*
***D**: 500 seeds, $66.50*



Resilient Shishito - ECO (65 days) OP. An open-pollinated selection of the ever-popular shishito. The folks at Wild Mountain Seeds have been selecting for plants that produce early crops with larger fruits that will fill up your skillet or market pints fast. After three seasons of trials here in Maine, we're sold: they are early, prolific and delicious! Light green, thin walled and mostly mild—just like Takara, but about twice the size. Blister them in hot oil and sprinkle with salt for something to nibble on while you cook dinner. **Breeder Royalties.** ① **NEW!**

3752 ***A**: 20 seeds, $3.45* ***B**: 60 seeds, $4.95*
***C**: 200 seeds, $7.95* ***D**: 500 seeds, $14.95*
***E**: 1,000 seeds, $19.95*

Banana - Organic (65 days) OP. No reason to hold back with these yellow pointed 6" fruits that look hot but are not. Pretty and plentiful, sweet and juicy, turning orange and ripening red. Enjoy fried or pickled. Go bananas! 1941 AAS winner. ①

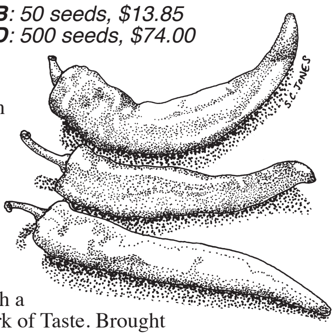
3747 ***A**: 0.2g, $2.95* ***B**: 0.4g, $3.95* ***C**: 1g, $7.50*
***D**: 2g, $12.50* ***E**: 4g, $18.00*

Greek Pepperoncini (65 days) OP. Ever since we lost Berkop's strain of Golden Greek, we've been on the hunt for a good pepperoncini: sweet but with a hint of heat. Eureka! These elongated 2–3" classically wrinkled peppers are perfectly suited for pickling either green or red. If you like your pickles a bit spicier, add a hotter pepper to the brining. Quite productive too: scores of fruit on compact plants a little over a foot tall. *Fantastikós!* ②

3753 ***A**: 0.2g, $2.85* ***B**: 0.4g, $3.50* ***C**: 1g, $5.95*
***D**: 2g, $9.15* ***E**: 4g, $15.95*

Carmen - Organic (70 days) F-1 hybrid. Johnny's Carmen debuted in 2006 to critical acclaim, including a coveted AAS. A classic Italian Corno di Toro type, Carmen features unusually sweet horn-shaped tapered pointed 2$^{1}/_{2}$x6" fruits averaging 5 oz that won rave reviews from all seven of our tasters. Great for salads, especially as they ripen from green to deep carmine, with good sweet flavor. Rob and Janika called Carmen "fruity," "nutty," "sweet with a hint of spice." Emily Skrobis emotes, "Wildly flavorful. I love it even though it's a hybrid. I make sure to freeze some roasted Carmens each season." Walls have only medium thickness, so take care not to get them overly charred when roasting. Upright medium-sized plants with excellent protective canopy. Widely adapted and early maturing in its class. ③

3757 ***A**: 10 seeds, $3.50* ***B**: 50 seeds, $13.85*
***C**: 200 seeds, $34.00* ***D**: 500 seeds, $74.00*
***E**: 1,000 seeds, $138.00*



Jimmy Nardello's - Organic (76 days) OP. This thin-walled 8" frying pepper has won many converts. The long curved tapering pointed fruits turn deep red with shiny wrinkled skin when ripe. Pleasing sweet mild flavor, good raw, in stir-fries and, especially, fried. According to Nardello family relative Patty Ruprecht of Pownal, ME, "the only way to eat them is to string them, dry them, fry them and salt them." Eat them plain or "better still as a sandwich on Italian bread with a slice of provolone." Listed on Slow Food's Ark of Taste. Brought to Connecticut from the village of Ruoti in the Basilicata region of southern Italy in 1887 by Jimmy Nardello's mother. ①

3762 ***A**: 0.2g, $3.45* ***B**: 0.4g, $4.95* ***C**: 1g, $8.50*
***D**: 2g, $12.95* ***E**: 4g, $19.00* ***K**: 14g, $40.00*

Apple - Organic (80 days) OP. Looking more like a lipstick than an apple, these shiny 4" fruits are elongated, with wide shoulders narrowing to a point, and fairly flat, like an ancho. Irresistibly appealing even before the ripe fruity sweetness touches your tongue. When we judge peppers at Common Ground Fair these red beauties always stand out. Delicious fresh and also roasted, they are reliably productive in our cool northern summers and pretty much guaranteed to fully ripen. Dependable and problem free on 2' plants. ①

3764 ***A**: 0.2g, $3.50* ***B**: 0.4g, $4.45* ***C**: 1g, $6.50*
***D**: 2g, $9.75* ***E**: 4g, $14.10* ***K**: 14g, $36.00*

Cubanelle (80 days) OP. Years ago our customers asked for this semi-sweet frying pepper and we quickly understood why. 6x2" waxy yellow-green fruits turn red. Not pungent. "Hands down our biggest fruit producer of all pepper varieties for many years now," reports Anne Elder. ②

3766 ***A**: 0.2g, $2.55* ***B**: 0.4g, $3.15* ***C**: 1g, $3.85*
***D**: 2g, $5.45* ***E**: 4g, $6.95* ***K**: 14g, $9.95*

Aconcagua (85 days) OP. The highest peak in both the Western and Southern hemispheres, Aconcagua in Argentina stands a lofty 22,841 ft. This ginormous frying pepper is said to originate in Argentina. Elongated cone-shaped 2$^{1}/_{2}$x10" fruits tapering to a blunt rounded end can approach a foot in length. Turning from green to yellow to orange to red, the gorgeous fruits are very sweet, crunchy and fruity, ideal for grilling and frying. Delicious at any stage of ripeness. The plants reach almost 3', with such a heavy pendent fruit set that they benefit from staking. May not always ripen fully to red for northern-tier growers, although we have seen many red fruits in the Common Ground Exhibition Hall. ②

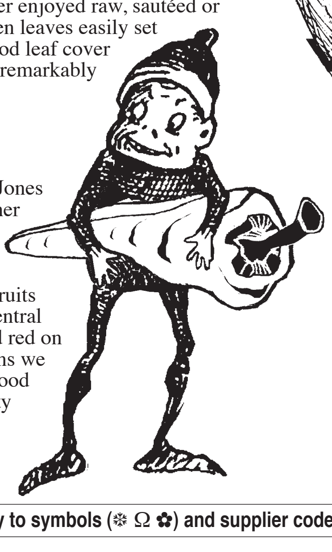
3769 ***A**: 0.2g, $2.95* ***B**: 0.4g, $3.95* ***C**: 1g, $5.50*
***D**: 2g, $7.75* ***E**: 4g, $11.00*

Odessa Market - ECO (87 days) OP. Heirloom pepper from Odessa on the Black Sea in Ukraine whose attributes translate wonderfully to Maine's Zone 4. It grows rapidly and dependably sets 7–12 fruits per plant, crisp, juicy, thick-walled and tasty. At the edible green stage the 2$^{1}/_{4}$x4$^{1}/_{2}$" tapered peppers have a distinctive wild lime color that morphs to orange and then to a deep dark red. Sweet and full-textured whether enjoyed raw, sautéed or roasted. Strong stocky stems and unique dark green leaves easily set it apart from most others. Broad canopies with good leaf cover reduce sunscald and protect from frost. Fruits are remarkably free from blossom end rot. ①

3772 ***A**: 0.2g, $3.50* ***B**: 0.4g, $4.45*
***C**: 1g, $6.25* ***D**: 2g, $9.50*
***E**: 4g, $13.75*

Mega Marconi - Organic (90 days) OP. Doug Jones has had another breeding breakthrough as he further de-hybridizes Seminis' Giant Marconi into a more compact habit while retaining the heavy early fruit set of 2$^{1}/_{2}$x8" tender-skinned Italian-style Lamuyo peppers. Although selected fo zen fruits per plant in our trials, grown in an open field in central Maine without black plastic. 35% of them ripened red on the plants and those were the sweetest of the strains we tried, with good texture and juiciness. They had good pepper flavor when green and were especially tasty when ripe. **Breeder Royalties.** ① **BACK!**

3736 ***A**: 0.2g, $3.65* ***B**: 0.4g, $5.25*
***C**: 1g, $9.95* ***D**: 2g, $14.50*

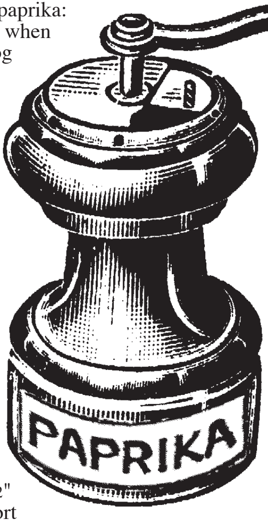


PAPRIKA

Karlo - Organic (70 days) *Not available in 2024.*

Boldog Hungarian Spice - Organic (71 days) OP. The Boldog from Hungary that doesn't bite but does dry nicely with a hint of spiciness. A prolific bearer of 4–6" long wrinkled tapered pendent fruits. Pick red and grind into sweet paprika, string into decorative ristras or enjoy fresh, although skins are a little tough. Boldog sets enough fruit to accommodate all three uses. Emily Skrobis reports that 8 plants easily produced a quart of paprika: "I never use store-bought paprika when I have immensely flavorful Boldog to spice up my cooking. It gets lots of compliments!" The town of Boldog is in a well-known spice-pepper district northeast of Budapest. ①

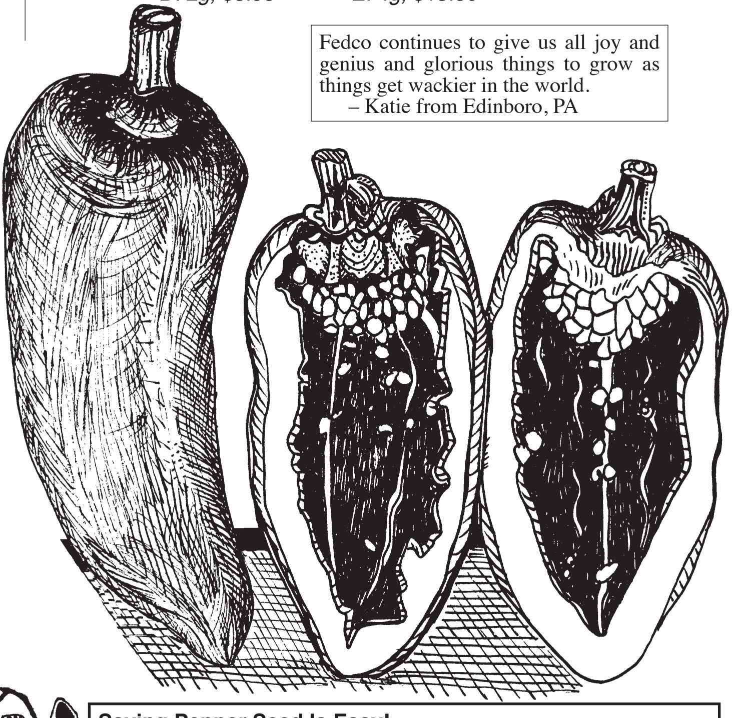
3759 ***A**: 0.2g, $3.25*
***B**: 0.4g, $4.25*
***C**: 1g, $6.50*
***D**: 2g, $9.75*
***E**: 4g, $15.00*



Feher Ozon - Organic (90 days) OP. Hungarian heirloom. Our first introduction to this extraordinary pepper was in a jar…dried and ground to a wonderfully sweet paprika. The field reports didn't even consider this aspect, instead extolling Feher Ozon for incredible productivity: up to 2 dozen 3x4$^{1}/_{2}$" pointed light yellow fruits per short plant. Emily says despite their "stumpy" stature, her plants were loaded with fruits. One trialer fed her entire neighborhood with these sweet fleshy thick-walled peppers. If you let any ripen to red, they can be dried for a delicious paprika. We also love them grilled. The beauty of this pepper as it turns is noteworthy. Beginning with the faintest red overtones blending into its yellow background, the red blush grows more pronounced as it matures. ①

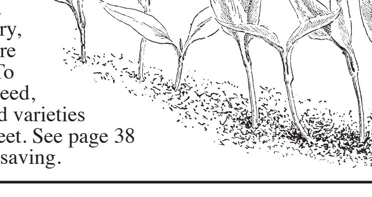
3776 ***A**: 0.2g, $2.95* ***B**: 0.4g, $3.95* ***C**: 1g, $6.50*
***D**: 2g, $8.95* ***E**: 4g, $13.50*

> Fedco continues to give us all joy and genius and glorious things to grow as things get wackier in the world.
> – Katie from Edinboro, PA



Saving Pepper Seed Is Easy!

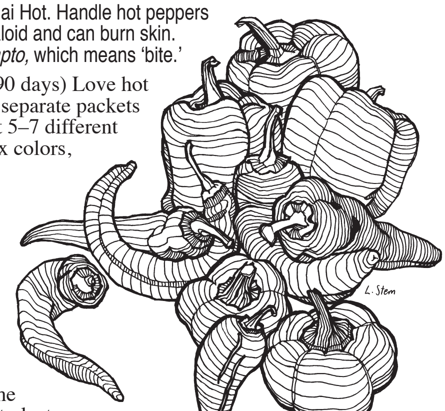
Remove core of the fully ripe pepper (usually red or orange) and dry on a coffee filter. When dry, rake seeds off the core with a butter knife. To ensure true-to-type seed, grow open-pollinated varieties and separate by 30 feet. See page 38 for more about seed saving.



Key to symbols (❄ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

HOT PEPPERS

About 110–200 seeds/g, except Thai Hot. Handle hot peppers with caution; capsaicin is highly alkaloid and can burn skin. Capsicum comes from the Greek *kapto,* which means 'bite.'



Some Like it Hot Blend (64-90 days) Love hot peppers but lack the space to try separate packets of each? Try our blend of at least 5–7 different kinds all in one packet. We'll mix colors, shapes and flavors.

3897 ***A***: *0.2g, $2.95*
B: *0.4g, $4.95*
C: *1g, $8.15*
D: *2g, $13.50*
E: *4g, $19.95*

Czech Black - Organic (65 days) OP. Fruits so striking that seed grower Roberta Bailey kept a bowl on her table just to admire. Black when immature, the 2$^1/_2$"-long conical peppers ripen to lustrous garnet. Mild juicy thick-walled flesh runs with cherry-red juice when cut. The heat, a tad less than a jalapeño, is in the ribs and seeds and is "just right for many of us," says one customer. Jake Kennedy of Millbridge, ME, has candied slivered Czech Blacks like citrus peel for a spicy-sweet holiday treat. Bears very early with about 20 pointed fruits per 2$^1/_2$–3' plant. 2,000–5,000 Scovilles. ①

3816 ***A***: *0.2g, $3.50* ***B***: *0.4g, $5.25* ***C***: *1g, $8.25*
D: *2g, $12.25* ***E***: *4g, $20.50*

Hungarian Hot Wax (68 days) OP. This hot one sets even in cool weather. Smooth waxy yellow 5$^1/_2$x1$^1/_2$" fruits taper to a point and ripen from yellow to orange to red. In fact, a few years ago a central Maine crop survived a near-fatal spring freeze after transplanting and went on to produce peppers in August. Nikos' favorite for chiles rellenos. Pickle all three colors for a beautiful hot-pepper medley—a staple for winter sandwiches. Janine Welsby uses them in batches of her famous pepper butter. Originated 1941 in Hungary. 5,000–10,000 Scovilles. ②

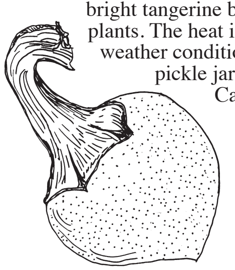
3837 ***A***: *25 seeds, $1.95* ***B***: *100 seeds, $3.00*
C: *200 seeds, $4.25* ***D***: *1000 seeds, $9.95*
E: *5000 seeds, $17.95*

Bulgarian Carrot Chili (68 days) OP. Also known as Shipkas. We first saw this show-stopper at Amy LeBlanc's farm. Resembling little polished fluorescent-orange carrots, the thin-walled 1$^1/_2$–3$^1/_2$" tapered fruits are as hot as they look and make welcome additions to chutneys, marinades and salsas, as well as excellent hot sauces. Also delicious dried and ground. Their fruity undertone nicely complements their heat. Just 18" tall, these prolific plants bear clusters of peppers close to the main stem, an unbelievable 40–55 fruits per plant! Brought indoors, they produced in Amy's greenhouse till February. Heirloom was smuggled here through the Iron Curtain more than 40 years ago. 5,000–30,000 Scovilles. ③

3852 ***A***: *0.5g, $2.95* ***B***: *1g, $3.75* ***C***: *2g, $6.50*
D: *4g, $10.50* ***E***: *28g, $45.00*

Ho Chi Minh - ECO (68 days) OP. Peppers 4–5" long on 3' plants grow like large fingers turning from bright yellow to crimson in late August. Longtime Minnesota co-oper Steven Schwen sent us seeds for this beautiful shining cayenne pepper that he got in the 1980s when the first wave of war refugees landed in Minnesota and came to his farm looking for chickens and ducks. He named it Ho Chi Minh in honor of the Vietnamese revolutionary who defeated all the colonialists who invaded his country. Schwen says it has a bite that makes you "run home to your mama!" We've enjoyed its prolific production (up to two dozen fruit per plant), its heat and good flavor. About 30,000 Scovilles. ❧2007. ①

3855 ***A***: *0.1g, $5.00* ***B***: *0.2g, $9.00* ***C***: *0.6g, $22.00*
D: *1g, $32.00* ***E***: *3g, $80.00*



Carrot Bomb - Organic (74 days) OP. An explosion of round 1–2" shiny bright tangerine baubles blow up the pepper patch on sturdy 2–2$^1/_2$" plants. The heat is comparable to a mild jalapeño but will vary with weather conditions. A bold spark in salsas, kebabs, stir-fries or the pickle jar. 5,000–30,000 Scovilles. Selected from Bulgarian Carrot by Daniel Brisebois of La Ferme Coopérative Tourne-Sol. ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

> First time gardener. The mix packets especially helped with choice paralysis.
> – Jesse from Warren, PA

Potassium Nitrate (KNO_3) Also known as saltpeter, used to soften the coat of many seeds to expedite germination. Recommended for brassicas, eggplant, peppers, tomatoes, basil, endive, radicchio, and most flower seed. Comes in fine granular form. Dilute $^1/_2$ tsp in 1 qt water. Use as a pre-soak for seed or to water seedling flats. 10g packet contains 2 tsp. *Note: Not allowed for certified-organic use.*

3999 ***A***: *10g, $2.50*

Fireball (75 days) F-1 hybrid. Like the candy of the same name, Fireball turns the inside of your mouth red. Its initial impression of sweetness is swiftly followed by an expression of searing heat. Small strawberry-shaped fruits turn from shiny green to blazing red, mirroring the fire within. Donna Dyrek's first ripened Sept. 1; additional fruits matured slowly. In mid-October her plants were still covered with peppers. 2,500–5,000 Scovilles. Resists TMV. This lot tested negative both for TMV and BLS. ④

3819 ***A***: *20 seeds, $3.95* ***B***: *60 seeds, $8.75*
C: *200 seeds, $20.50* ***D***: *500 seeds, $45.00*
E: *1,000 seeds, $78.00*

Long Red Narrow Cayenne (75 days) OP. Often curled and twisted, the wrinkled peppers grow 5–6" long, $^1/_2$" across, and taper to a point. Dark green color changes to bright red. Prolific ("produce zillions") and hot. The backbone of Hillary Nelson's red chile pastes. Dries easily on screens; Holli Cederholm runs them through a food processor for crushed red pepper. Pre-1827 heirloom. Pungent; 3,500–5,000 Scovilles. ②

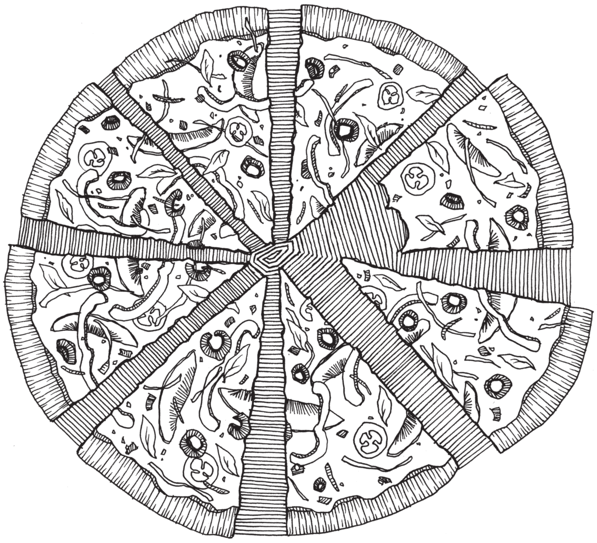
3821 ***A***: *0.25g, $2.25* ***B***: *1g, $2.95* ***C***: *2g, $4.15*
D: *4g, $5.95* ***E***: *28g, $11.95*

Jaluv An Attitude - Organic (75 days) OP. Earth-passionate breeder Relentless blended at least three kinds of peppers into its pedigree, although it looks like a jalapeño in color, shape and size. In the breeder's own words: "If I had to have one chili on a desert island, it used to be a jalapeño. Now maybe not. This new chili is the result of a cross between an open-pollinated jalapeño and (my own) original that was called 45° N Attitude. The object was to have a thicker-skinned 45° with a lot of jalapeño flavor. The 45° N had thin skin, delicious hot fruity flavor, and dried and produced well in northern latitudes. My overriding intent in crossing them was to obtain the best combination of both." In 2022's paucity of peppers displayed at the Common Ground Fair Exhibition Hall, Jaluv stood out. Got attitude? Ayuh! 2,500–8,000 Scoville units. ❧2008. **Breeder Royalties. OSSI** ① *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

open source seed initiative

Early Jalapeño (75 days) OP. Hot 3x1" sausage-shaped blunt fruits mature early. Characteristic brown netting appears as fruits ripen from dark green to dark red. Staffer Emily Skrobis finds Early Jalapeño super productive and dependable: "Its heavy fruit set means I can pick early for batches of summer salsa and leave plenty to ripen to make a sweet spicy hot sauce." Packing the seed makes us teary-eyed! From Jalapa in the state of Veracruz, Mexico. 4,000 to 6,500 Scoville units at maturity. ②

3834 ***A***: *25 seeds, $1.95* ***B***: *100 seeds, $3.00*
C: *200 seeds, $4.00* ***D***: *1000 seeds, $8.00*
E: *5000 seeds, $14.00*

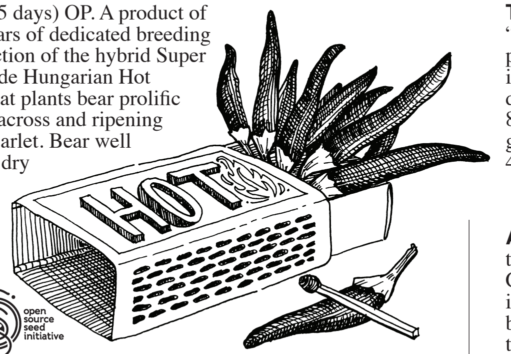


Hidalgo Serrano - ECO (75 days) OP. Slightly hotter than a jalapeño, its "bright fruity hot flavor lingers in the front of the mouth and makes your taste buds tingle all over," said one seed producer. Extremely prolific 3–3$^1/_2$' plants yield dozens of light green fruits that ripen to bright scarlet. The 2$^1/_2$–3 x $^1/_2$" fruits, as fat as your ring finger but only as long as your pinky, have thin walls, a long seed cavity and classic serrano heat. They are perfect for fresh salsa, pickling and hot sauces. Originated in the mountainous regions of the Mexican state of Hidalgo. 3,000–17,000 Scovilles. ①

3838 ***A***: *0.2g, $3.00* ***B***: *0.4g, $5.00* ***C***: *1g, $9.00*

Serrano (75 days) OP. Your typical common serrano, somewhat hotter than a jalapeño, and with a delayed punch. Prolific 3–4$^1/_2$' plants yield light green thin-walled 2–3 x $^1/_2$" fruits that ripen to scarlet. Popular in Vietnamese and Mexican cuisine, serranos are often eaten raw, mixed into pico de gallo or guacamole, or cooked into soups and chilis where the heat level mellows but flavor lingers. 2,000-17,000 Scovilles—heat varies with size (smaller can be hotter), color (green unripe fruit is often less pungent) and exposure to sun. ②

3842 ***A***: *0.2g, $3.45* ***B***: *0.4g, $5.75* ***C***: *1g, $9.95*



Matchbox - Organic (75 days) OP. A product of Roberta Bailey's many years of dedicated breeding work to create an OP selection of the hybrid Super Chili, whose parents include Hungarian Hot Wax and Hot Banana. Squat plants bear prolific upright fruit, 2" long, 1/3" across and ripening from pale green to deep scarlet. Bear well in cold damp weather, hot dry weather, sandy soils and heavy clay. Plants have finely cut lightweight leaves. Can be potted and overwintered, or used to make beautiful pepper wreaths. Plenty hot at 30,000-50,000 Scovilles. ❦2000. **OSSI** Ω ①

3866 ***A***: *0.2g, $3.50* ***B***: *0.4g, $5.50* ***C***: *1g, $8.95*
D: *2g, $14.25* ***E***: *4g, $22.00*

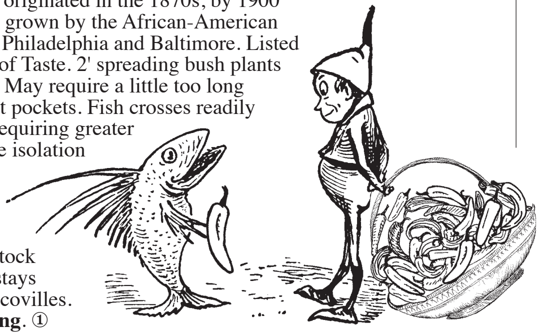
Anaheim (78 days) OP. Also known as California Chile and Chile Verde. Cultivated for canning in a factory near Anaheim around 1900. Anaheim is the pepper typically used for chiles rellenos. 7" long fruits tapering to a point turn from dark green to red at maturity. Pungent, but not particularly hot. 900–2,500 Scovilles. ②

3807 ***A***: *0.5g, $2.50* ***B***: *1g, $3.25* ***C***: *2g, $4.25*
D: *4g, $5.50* ***E***: *28g, $11.00*

Beaver Dam (80 days) OP. Early for its size and a heavy producer in normal years, sets several pendulous shiny horn-shaped 6" red-orange fruits per plant, 3" wide at the shoulders, tapering to a blunt point. Both sweet and with heat. Most of its mild spice is in its ribs so you can excise those if you wish. Karen Orso writes from California in the Eastern Sierra–Great Basin region, "Beaver Dam Pepper worked wonderfully for us this summer in our garden's 5,000' elevation in sandy loam with 5% humidity." Heirloom brought to Beaver Dam, WI, in 1912 by the Joe Hussli family. 500–1,000 Scovilles. ②

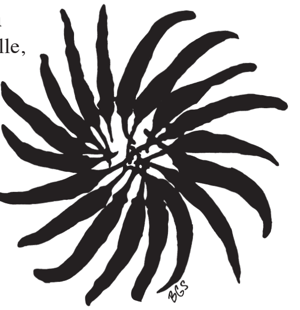
3804 ***A***: *0.2g, $3.25* ***B***: *0.4g, $4.25* ***C***: *1g, $6.25*
D: *2g, $8.50* ***E***: *4g, $13.00*

Fish - Organic (80 days) OP. A most attractive pepper plant with distinctive green and white mottled foliage and 2" curving pendent fruits that look a little like swimming fish. They turn from white with green stripes to orange with brown stripes to red, packing considerable heat and full-bodied flavor that especially enhances shellfish. A sport of a common serrano pepper that probably originated in the 1870s, by 1900 Fish was extensively grown by the African-American communities around Philadelphia and Baltimore. Listed on Slow Food's Ark of Taste. 2' spreading bush plants benefit from staking. May require a little too long season for the coldest pockets. Fish crosses readily with other peppers, requiring greater populations and more isolation than most others to remain pure. Roberta Bailey, our pepper maven, keeps selecting our stock to ensure this strain stays true. 5,000–30,000 Scovilles. **Black Benefit Sharing**. ①



3849 ***A***: *0.2g, $3.45* ***B***: *0.4g, $4.95* ***C***: *1g, $8.75*
D: *2g, $14.00* ***E***: *4g, $21.50*

Hotness of peppers is expressed in Scoville units, named after Wilbur Scoville, the Englishman who in 1912 devised this system of measuring capsaicin (which causes most of the heat in peppers) in which a pepper extract is diluted in sugar water until the spiciness is no longer detectable to a panel of five tasters. The test is useful, but imprecise, as specimens of a pepper variety will vary greatly depending on growing conditions. Warm nighttime temperatures stimulate maximum development of capsaicins and increase pungency levels.



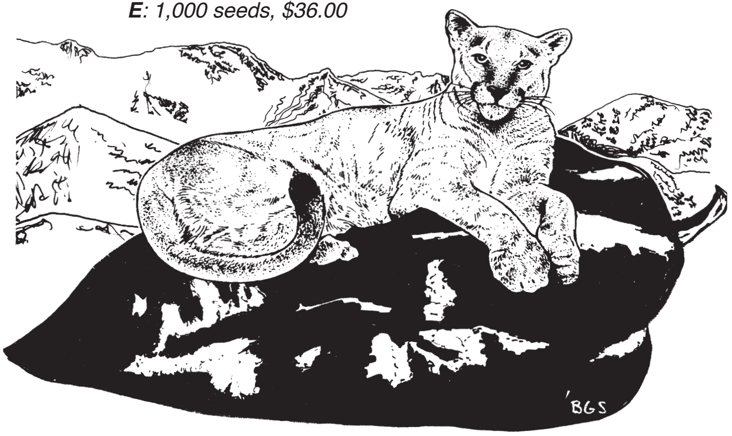
Bell, Pimiento	0	Hot Portugal	5–30k
Habanada	0	Fish	5–30k
Beaver Dam	<1k	Bulgarian Carrot	5–30k
Ancho, Poblano	1–2k	Thai Hot	25–40k
Anaheim	~1–2.5k	Ho Chi Minh	~30k
Czech Black	2-5k	Matchbox	30–50k
Fireball	2.5–5k	Hinkelhatz	~125k
Jaluv an Attitude	2.5–5k	Habanero	200–325k
LRN Cayenne	3.5–5k	self-defense pepper spray	2–3M
Early Jalapeño	4–6k	police-grade pepper spray	5.3M
Hungarian Hot Wax	5–10k	straight capsaicin	15–16M

Thai Hot - Organic (82 days) OP. Anne Elder gets 200 of these little "sweeties" per plant, "cute little compact treasures full of heat." Small conical peppers ripen to bright red and stand erect above the foliage so fetchingly that it's grown "in the trade" as a red and green Christmas potted plant. However, devotees of hot cuisine prize its sparks. Early pinching will produce a bushy 8" plant that can be pulled, roots and all, and hung to dry for winter use, or grown inside for ornamental and edible enjoyment. Checks in around 25,000-40,000 Scoville units. ~400 seeds/g. ①

3860 ***A***: *0.2g, $3.25* ***B***: *0.4g, $4.95*
C: *1g, $6.95* ***D***: *2g, $11.00*

Alpine Poblano/Ancho - ECO (60 days green, 80 days red ripe) OP. A triumph of breeding work from Wild Mountain Seeds in Zone 3 Carbondale, CO, these large uniform poblanos perform well in cold climates and also impressed us with big yields in Maine's sea level Zone 5. In 2013 the breeders collected as many poblano strains as they could find and flowered them together. From that population a few specimens stood out, and Wild Mountain continued selecting to improve size, uniformity and yield, shaping that original promiscuously pollinated hybrid swarm into a stable variety, with what the breeders call a "perfectly shaped poblano population." **Breeder Royalties.** ① **NEW!**

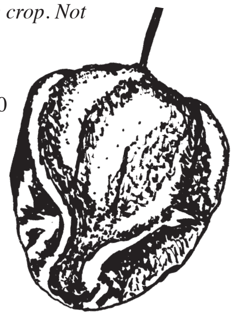
3810 ***A***: *20 seeds, $2.95* ***B***: *60 seeds, $4.95*
C: *200 seeds, $12.00* ***D***: *500 seeds, $24.00*
E: *1,000 seeds, $36.00*



Trident Poblano/Ancho (64 days green, 80 days red ripe) F-1 hybrid. Spear yourself a winner with the three prongs of beauty, flavor and productivity. These big relatively mild hot peppers have a perfect balance of heat and sweet rich flavor in their thick flesh and ribs. Known as Poblanos when green and Anchos when dried, they are used for roasting, stuffing, making chili powder and sauces, especially the classic mole. Large uniform glossy very dark green 3-lobed elongated fruit (3½–5" long x 3" wide) with a recessed stem will mature to a deep brick red. Extremely productive, the fruits maintain their size over multiple pickings. Tall plants may require staking. Approx. 1,500 Scoville units. Resists TMV. ⑤

3813 ***A***: *20 seeds, $4.25* ***B***: *60 seeds, $9.95*
C: *200 seeds, $27.00* ***D***: *500 seeds, $49.95*

Hinkelhatz (88 days) *Neighbor's cows trampled the crop. Not available in 2024.*



Orange Habanero (90 days) OP. *C. chinense* A Scotch Bonnet–type infamous for its extreme heat, fiery Habanero registers a blistering 200,000–325,000 Scoville units, depending on how hot the growing season, 30–80 times as hot as Early Jalapeño! Each 1½' plant will set 10–20 pendulous fruits that turn from dark green to tangerine as they mature. Fruits are somewhat wrinkled from stem to tip. Their distinctive flavor makes them a key ingredient in West Indian jerk sauces. We recommend greenhouse culture for the northern third of our sales area where frequent nighttime temperatures below 70° make outdoor production iffy. ④ **BACK!**

3874 ***A***: *0.5g, $2.25* ***B***: *1g, $3.25* ***C***: *2g, $4.95*
D: *4g, $7.00* ***E***: *28g, $25.00*

Red Habanero (90 days) *Dropped. Try **3874** Orange Habanero.*

Habanada - Organic (100 days) OP. **Scoville Units:** ***nada!*** A habanero with most of the fruity floral notes and none of the pain. Even the seeds are sweet. The shiny orange 1x2½" fruits are a bit longer than a habanero but mostly they pull off the look. Each bushy short plant bears about 2 dozen sweet fruits. "So yummy," enthused our trialer, who was making a dried powder to sprinkle on popcorn. Definitely a new distinctive flavor to inspire experimentation, perhaps to tone down a hot sauce or possibly to brighten up a dessert. Excess nitrogen can result in a bushy plant with no fruit. Bred by Michael Mazourek as part of his doctoral research. ②

3876 ***A***: *20 seeds, $3.95* ***B***: *60 seeds, $8.95*
C: *200 seeds, $19.50* ***D***: *500 seeds, $38.00*
E: *1000 seeds, $64.00*

Key to symbols (❄ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

RADISH

Raphanus raphanistrum subs. *sativus*

Days to maturity are from date of seeding.

Culture: Summer radishes may be sown almost as soon as the ground can be worked. **Minimum germination soil temperature 40°, optimal range 55–85°.** They emerge rapidly and grow quickly. Sow 1–2" apart, and thin to at least 2" for attractive uniform roots. Use row cover (p. 142) to protect from flea beetles. They develop more pungency in dry heat than in cool moist weather. Ready for harvest at about the size of a quarter and will rapidly get woody if allowed to grow much larger.

Disease: FY = Fusarium Yellows

Note: We cannot ship larger than half oz. packets of radishes to the Willamette Valley due to quarantine.

RED ROUND RADISHES

About 1,800–3,200 seeds/oz.

Rudolf - Organic (24 days) OP. If you had this highly selected OP radish for a nose, you would *definitely* be excluded from the reindeer games. Perfectly round 1" diameter roots are a brilliant cherry red with snow-white interiors. So vigorous and uniform that you might mistake it for a hybrid. Good for spring or fall planting and can be harvested for baby radishes. Resists cracking. ④ **NEW!**

2219 *A: 1/16oz, $3.50*
B: 1/8oz, $5.75
C: 1/2oz, $9.00
D: 1oz, $14.00
E: 4oz, $32.00

Celesta (24 days)
Dropped by supplier.
*Try **2243** Cheriette.*

Cherry Belle (25 days) OP. Good smooth red-skinned bunching radish making 3/4" balls with firm white flesh. Some variation in our observation plots. 1949 AAS. ②

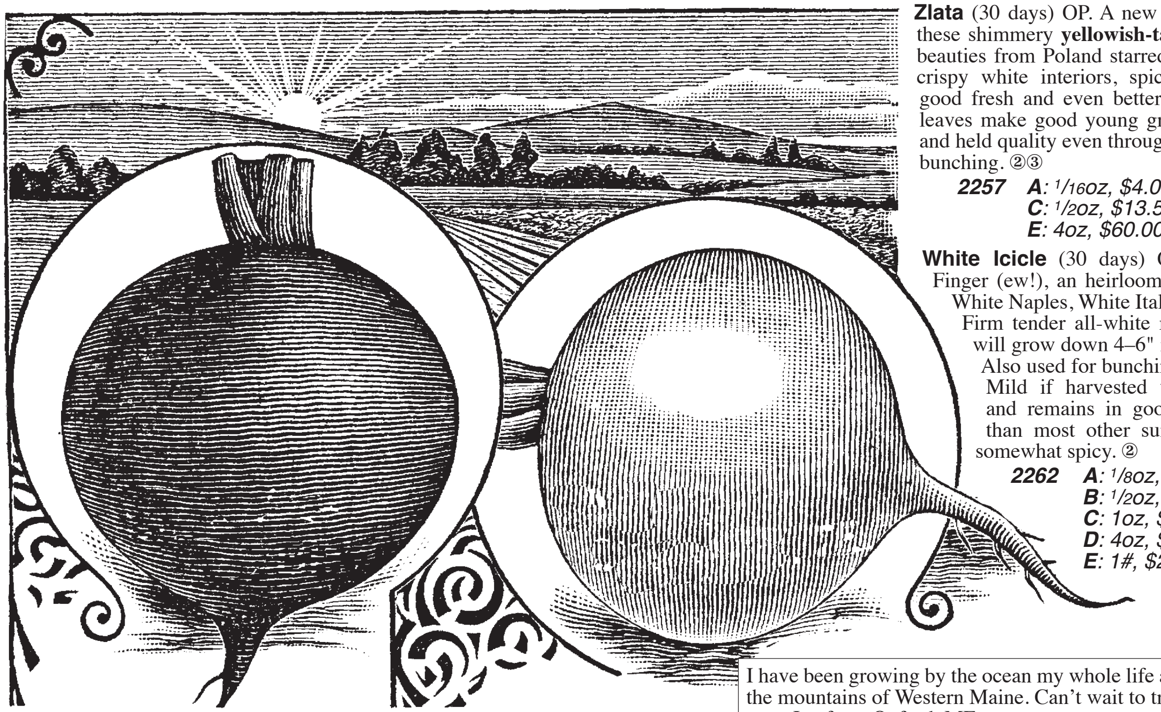
2214 *A: 1/8oz, $3.00   B: 1/2oz, $4.00   C: 1oz, $5.00*
D: 4oz, $7.50   E: 1#, $18.00   K: 5#, $64.00

Champion (25 days) OP. Smooth scarlet roots with firm mild flesh grow quickly to snackable size. Crunchy and juicy. Some variation in our trials, but one customer said "best radish I've grown in 40 years." Do not crowd. Thin, thin, thin! 1957 AAS. ②

2234 *A: 1/8oz, $2.50   B: 1/2oz, $3.00   C: 1oz, $4.50*
D: 4oz, $7.25   E: 1#, $16.00

Cheriette (26 days) F-1 hybrid. Vibrant scarlet skins with crisp sweet white flesh. Showed excellent field-holding quality in our trial and had the sweetest flavor with a mild tang. All 10 round slightly oval specimens in the sample were acceptable, 9 of them sufficiently uniform to be marketable. A higher yielder and stands heat better than many selections. Short tops. ⑤

2243 *A: 1/8oz, $4.50   B: 1/2oz, $7.50*



RADISHES of Other Colors

About 2400–3200 seeds/oz.

Easter Egg (25 days) OP. These good-sized delicious radishes do not become woody, hollow or too hot. Nor do they bolt easily. Kids and adults love this fascinating blend with shades of **pink, purple, red, violet and white**. Always our most popular radish among home gardeners and favored by market growers for bunching. ⑤

2224 *A: 1/8oz, $3.15   B: 1/2oz, $4.25   C: 1oz, $5.75*
D: 4oz, $10.50   E: 1#, $33.00

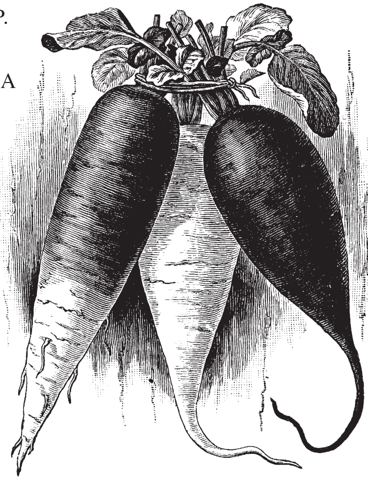
Pink Lady Slipper (25 days) OP. Named for the large showy wildflower that is listed as "of concern" in the Native Plant Protection Act, this is one Lady Slipper you can uproot with abandon. Pink Lady Slipper has the beauty of a **soft rosy-pink** color combined with bright white flesh that is crisp and mild. "Consistent, quick, good at all sizes, and so much prettier than plain ol' red rounds!" opines John McGarry of Muck and Mystery Farm in Providence, RI. The oblong plump roots, blunt at the tip and with a small taproot, hold longer than others without cracking or getting soft and pithy. Stays crisp for weeks after harvest. ②

2230 *A: 1/8oz, $2.75   B: 1/2oz, $4.50   C: 1oz, $6.00*
D: 4oz, $10.50   E: 1#, $26.00

Hailstone (25 days) *Dropped by our supplier.*

French Breakfast (26 days) OP. Favored in Paris markets since before 1879, and our best-selling radish in the larger packet sizes. "A medium-sized radish, elongated, with small tops of quick growth, very crisp and tender, of a beautiful scarlet color, except near the tip, which is pure white. A splendid variety for the table, on account of its excellent quality and its beautiful color."—From D.M. Ferry & Co's Descriptive Catalog, 1902. Gets pithy earlier than many others. ⑤

2248 *A: 1/8oz, $2.75*
B: 1/2oz, $4.25
C: 1oz, $6.25
D: 4oz, $11.00
E: 1#, $26.00
K: 5#, $115.00



Plum Purple - Organic (26 days) OP. This popular plum-colored round radish, almost the size of a ping-pong ball, has recently been reselected for more uniformity. Crisp white flesh has a good sweet taste with only a little heat. One customer who grows radishes under row covers to avoid root-maggot damage calls Plum Purple the radish most tolerant to slightly shaded row-cover conditions. ①

2253 *A: 1/8oz, $4.00   B: 1/2oz, $9.00   C: 1oz, $13.00*
D: 4oz, $40.00

Zlata (30 days) OP. A new color in summer radishes; these shimmery **yellowish-tan russeted** medium-sized beauties from Poland starred in our trial. Crunchy and crispy white interiors, spicy but not overwhelming, good fresh and even better braised. Its light-textured leaves make good young greens. Did not bolt or split and held quality even throughout June rains. Perfect for bunching. ②③

2257 *A: 1/16oz, $4.00   B: 1/8oz, $6.00*
C: 1/2oz, $13.50   D: 1oz, $20.00
E: 4oz, $60.00

White Icicle (30 days) OP. Also known as Lady Finger (ew!), an heirloom listed by Fearing Burr as White Naples, White Italian and White Transparent. Firm tender all-white roots for the home garden will grow down 4–6" in all but the heaviest soils. Also used for bunching by commercial growers. Mild if harvested when young and slender, and remains in good eating condition longer than most other summer radishes. Juicy and somewhat spicy. ②

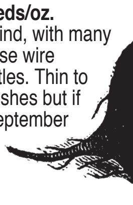
2262 *A: 1/8oz, $3.25*
B: 1/2oz, $4.50
C: 1oz, $5.15
D: 4oz, $9.25
E: 1#, $21.00

> I have been growing by the ocean my whole life and am now growing up in the mountains of Western Maine. Can't wait to try the new varieties!
> – Jan from Oxford, ME

We ship seeds to Canada!

WINTER RADISHES

About 2100–2900 seeds/oz.



Culture: Slower-growing than the quick summer kind, with many growing deeper roots; often cylindrical in shape. Use wire hoops and row cover (p. 142) to keep out flea beetles. Thin to 6" apart. They hold much longer than summer radishes but if they start to bolt, pinch off the tops. Ideal in late September and October from an early August planting, and can be stored in the root cellar like carrots and beets in slightly moistened sand or layered into damp raked leaves.

Watermelon (55 days) OP. A welcome addition to any winter vegetable collection, these radishes will please with their consistent sweet tender flesh and brilliant color display. Like its namesake, Watermelon reveals its sweet smooth **bright rose flesh** once you slice through the green and white skin. Instead of watermelon, the name in its native land is *xin li mei*, meaning 'in one's heart beautiful.' Growing to a robust 2 1/2" diameter in just 45 days, these precocious winter keepers are best suited for a early to mid-August sowing. At full maturity, the attractive 4" long oblong roots will store for months in the root cellar and keep their vibrant colors even when cooked. Selected from among 6 strains for their uniform coloring and daikon leaves. A real treat sliced, topped with farm butter and a pinch of sea salt. "Fast and delicious," sums CT market grower Bryan O'Hara. ③④

2265 ***A**: 1/8oz, $3.00* ***B**: 1/2oz, $5.00* ***C**: 1oz, $7.25*
***D**: 4oz, $14.50* ***E**: 1#, $48.00*

Misato Rose - Organic (60 days) OP. This unique selection from a hybrid came about as a happy accident when Fedco first started growing seed crops. We were new to seed saving and missed that we were working with a hybrid, meaning the seed we grew would not be true to type. We ended up with a strain that has two happy variations: about half have light greenish-tan outer skins and light green stems and leaf veins, the remainder medium-rose outer skins, rose stems and leaf veins. The round roots of both types have the characteristic **rose flesh**, the ones with the darker skins having darker and more pungent hearts. Both are fine tasting and good looking, with plenty of spiciness, a rich sweet vegetable undertone and no harsh sharpness. Will grow as large as a big beet if given sufficient space. For autumn crops; a good keeper. ❧2003. ①

2269 ***A**: 1/8oz, $4.00* ***B**: 1/2oz, $10.00* ***C**: 1oz, $13.00*
***D**: 4oz, $40.00* ***E**: 1#, $140.00*

Round Black Spanish (65 days) OP. For some real heat, try a slice of the venerable Black Spanish. Turnip-shaped 4" roots with corklike black exteriors have extremely pungent white flesh that loses some heat when boiled or stir-fried. Listed in *Hortus Kewensis*, the 1789 catalog of plants growing at Kew Royal Botanic Gardens, England, as having been brought there in 1548. ②④

2270 ***A**: 1/8oz, $2.75* ***B**: 1/2oz, $4.25* ***C**: 1oz, $6.00*
***D**: 4oz, $8.50* ***E**: 1#, $18.00*

DAIKON

About 2900–3000 seeds/oz.

Daikon means 'big root' in Japanese. Can be stored in the root cellar like carrots and beets in slightly moistened sand or layered into damp raked leaves.

Mini Purple (50 days) F-1 hybrid. Wide plumb-bob–shaped 5x2 1/2" roots with gorgeous bluish-purple skin and greenish-purple shoulders are "mini" only when compared to long white types. Topped by vibrant dark green leaves with short stems blushed purple-pink. Interior flesh is ringed **deep purple** with streaks through white meat merging into a purple sunburst core. All sizes, from 3" up to the 9" bombs, have excellent crunchy tender raw texture and mildly spicy flavor. When cooked, Mini becomes firm, sweet and savory with tangy hints of rutabaga. Excellent keeper: Elisabeth fermented the last of hers with fresh cilantro the following summer. They make magenta pickles. *Note:* expect 10% green-shouldered white off-type roots of same flavor and texture. ⑤

2277 ***A**: 1/16oz, $4.75* ***B**: 1/8oz, $7.00*
***C**: 1/2oz, $17.00* ***D**: 1oz, $28.00*

Green Meat - Organic (55 days) OP. Unique miniature daikon radish with striking **lime-green flesh** grows 6–9" long and 1–3" wide. The above-ground exposed shoulders turn a deep green while the tips remain white. Fine-grained, crisp and sweet. Carter says it has a "distinct green-apple flavor." Used in Asia for salads, cooking and pickling. David Nonnenmacher suggests trying a slice on homemade bread slathered with butter. Green Meat and **2269** Misato Rose keep in his root cellar until May. ①

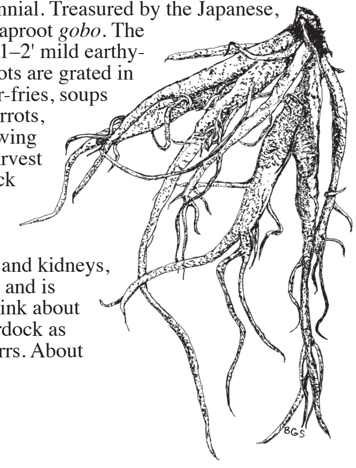
2268 ***A**: 1/16oz, $2.25* ***B**: 1/8oz, $4.15*
***C**: 1/2oz, $9.25* ***D**: 1oz, $13.50*
***E**: 4oz, $44.00* ***K**: 1#, $120.00*

Saitaro (69 days) F-1 hybrid. Thick uniform 9–12" root tapers to a blunt point. Its growth will be steady and slow bolting, vigorous tops shading the nice-looking white roots with light green tinted shoulders. With very smooth silky texture **cooked** and a nicely spiced crunch when raw, this one is sure to have you saying *oishii desu ne* ("ohee-SHE-des-nay"). Resists FY. ⑤

2285 ***A**: 1/16oz, $4.65* ***B**: 1/8oz, $7.75*
***C**: 1/2oz, $20.25* ***D**: 1oz, $33.00*

RANDOM ROOTS

BURDOCK *Arctium lappa*



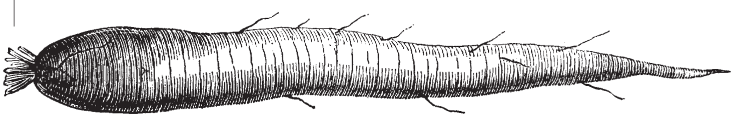
Takinogawa (120 days) OP. Biennial. Treasured by the Japanese, who call its long fleshy aromatic taproot *gobo*. The standard Japanese variety, setting 1–2' mild earthy-tasting bittersweet roots. Small roots are grated in salads; larger roots are good in stir-fries, soups and wild ferments. Culture like carrots, working the soil deeply, direct-sowing in spring and thinning to 3–6". Harvest in fall or early next spring. Burdock has a long history as a medicinal. Herbalist Deb Soule says burdock root, whether eaten or used in a tea or tincture, nourishes the liver and kidneys, balances digestion, helps the skin, and is useful in anti-cancer remedies. Think about that the next time you run into burdock as a common weed dispensing its burrs. About 1,600 seeds/oz. ⑤

2300 ***A**: 1/8oz, $5.00*
***B**: 1/2oz, $13.00*
***C**: 1oz, $19.00*
***D**: 4oz, $57.00*

ROOT PARSLEY *Petroselinum crispum*

Arat (88 days) OP. Biennial. Enhance your soups and specialty dishes with these nutty-flavored roots, redolent of parsley and celery. Sweeter and more uniform than Hamburg, these roots are whoppers: they fill out well and grow almost a foot, benefiting from a deeply worked seed bed. You can sustain a harvest through much of the winter and possibly into spring if you protect them. Young flat parsley leaves also add zest. About 20,400 seeds/oz. ④

2301 ***A**: 1/16oz, $5.00* ***B**: 1/8oz, $7.15* ***C**: 1/2oz, $22.25*
***D**: 1oz, $36.50* ***E**: 4oz, $110.00*



SALSIFY *Tragopogon porrifolius*

Gammel Gotlandsk - ECO (120 days) OP. Biennial. Also known as oyster plant, its flavor bearing only the most fanciful resemblance to that of the bivalve mollusk. This variety came to us from our friends at Runabergs Froer who described it as "the best" in their trials. Nikos agrees it is the best and highest-yielding salsify she's ever seen. Its name means 'old from the Island of Gotland,' the largest island off the coast of Sweden in the Baltic Sea. Similar to **2322** Scorzonera, sporting one long 8–9" taproot, described by Barbara Damrosch as having "tan and shaggy" bark concealing its snow-white interior. Thicker than a pencil but much thinner than a carrot. May be wintered over like a parsnip and harvested in the spring before it goes to seed. Comes up like a big grass clump; thin the plants for adequate room. In the second year each plant sets dozens of little purple daisy-like blossoms that open to 4" puffballs. ① *We're not sure when this seed will arrive at our warehouse—check our website for availability.*

SCORZONERA *S. hispanica*

Noir de Russie (120 days) OP. Biennial. The name scorzonera derives from the Spanish *corteza negra* or 'black bark.' Long narrow dark-skinned white-fleshed root is a good source of iron, phosphorus and calcium. Although not handsome, it is prized by chefs in Europe for its distinctive flavor, and used like potatoes in haute cuisine. Much of the flavor resides in the dark skin so do not peel before cooking. Has a firm smooth texture, not sweet like many root vegetables. Culture like parsnips, overwintering in the field and pulling as needed. Flavor improves after a hard frost. Has only limited storage in root cellars, nor does it can or freeze well, so use right after harvest. Seed is short-lived; germ test old seed in paper towels before sowing. ~2,150 seeds/oz. ②

2322 ***A**: 1/8oz, $3.75* ***B**: 1/2oz, $6.00*
***C**: 1oz, $8.50* ***D**: 4oz, $24.00*

SKIRRET *Sium sisarum*

Skirret - ECO (120 days) OP. Perennial to Zone 5. Although native to China, the word skirret derives from the Dutch *suikerwortel* meaning 'sugar root.' This perennial is not high yielding, which has kept it out of commercial production. So if you want to enjoy skirret, grow it yourself. The 6–8" pinky-width greyish-white roots cluster at the base of the 3–4' plant and may be harvested in fall, but are customarily overwintered for sweet treats in spring. Roots have a sweet nutty flavor that has been appreciated ever since they made an appearance at medieval feast tables. Has an affinity for wet or boggy land that most vegetables resent. Start indoors 8–10 weeks before setting out, or direct seed in spring. It tolerates spring frosts and transplanting well. Thin to 1' apart. A versatile addition to your cuisine. 2,240-2,800 seeds/oz. ① *We're not sure when this seed will arrive. Check our website for availability.*

SPINACH

Spinacia oleracea

- About 1500–2800 seeds/oz.

- Days to maturity are from date of direct seeding.

Culture: Very hardy, spinach prefers cool temps. Planted as soon as the ground can be worked in spring to avoid early bolting. **Minimum germination temperature 35˚; optimal range 45–65˚.** Spinach seed will not germinate in soil temperatures above 85˚. For fall crop, try late July–Aug. sowing; to overwinter, sow late Aug.–Sept. Heavy feeder, but note that applying high-nitrogen fertilizers to spinach shortly before harvest can cause high nitrate levels in the leaves.

Pick large leaves often for heavier production. Smooth-leaved spinach is easier to wash than the semi-savoyed type and is increasingly preferred. Heat, crowding and long day-length (more than 14 hours) trigger bolting. To retard bolting, avoid hot-weather planting, use wider spacing, and irrigate or use shade cloth.

The use of disease-resistant and hardy varieties, cold frames, row covers and hoophouses has made spinach into a nearly year-round crop. Growers should rely on **2510** Space or **2539** Oceanside for winter production.

Diseases:

BM	Blue Mold	CLS	Cladosporium Leaf Spot
CMV	Cucumber Mosaic Virus	DM	Downy Mildew

Downy Mildew (DM) is caused in spinach by *Peronospora farinosa* f. sp. *spinaciae*. This pathogen evolves new races at a fast clip, challenging breeders and growers worldwide to keep up. Resistant varieties are the main management tool. While formerly considered Somebody Else's Problem, spinach DM has popped up here and there in the Northeast on a seemingly random cross section of spinach varieties. Most cases have been in protected winter crops. Researchers such as Dr. Meg McGrath of Cornell, along with regional seed companies, are tracking these occurrences with hopes of more knowledge before it becomes a major problem. Stay tuned! Until then, good info and visual spinach-disease primers can be found at:

mtvernon.wsu.edu/path_team/spinach.htm
vegetablemdonline.ppath.cornell.edu/NewsArticles/SpinachDowneyMildew.html

Beaujolais - Organic (30 days) OP. More than a decade ago we carried the variety Bordeaux, but we put that niche spinach on the chopping block when Syngenta bought out supplier Daehnfeldt. We're happy now to list Beaujolais, a very similar wine-themed organic varietal developed by our friends at Uprising Seeds on their farm in eastern Washington wine country. Be forewarned: this spinach bolts quickly so is best grown in the cooler ends of the season. Prized as a baby green for its striking magenta-red stems and veins in deep green arrowhead leaves. Has the characteristic shine of young beet greens, but Beaujolais tastes milder and sweeter in a salad mix. Nikos found the leaves from bolted plants still quite delicious. To borrow the words of Jonathan Swift, this beaujolais should be eaten, it is too good to be drunk. **OSSI** Ω ❆ ①

2500 ***A***: *1/4oz, $5.75* ***B***: *1/2oz, $10.25* ***C***: *1oz, $17.00*

Space (37 days) F-1 hybrid. We regularly sell more than 3,500 packets per year! Produces the kind of vigorous big thick wavy mostly smooth, slightly savoyed leaves that market growers love and restaurant chefs adore. Relatively long-standing when sown in early spring. Vigorous at all times, it was the quickest to mature from a fall planting. Upright growth results in good clean dark green leaves with a juicy sweet taste. We've heard rumors of Space's intended demise so don't Space out on ordering seed! Resistant to DM1,2,3,5,6,8,11,12 and some resistance to CLS. ❆

Space ④

2510 ***A***: *1/4oz, $3.50* ***B***: *1/2oz, $5.00* ***C***: *1oz, $7.00*
D: *4oz, $14.00* ***E***: *1#, $37.00* ***K***: *5#, $142.00*

Space - Organic ④ **NEW!**

2509 ***A***: *1/4oz, $4.00* ***B***: *1/2oz, $5.95* ***C***: *1oz, $7.00*
D: *4oz, $13.50* ***E***: *1#, $55.00* ***K***: *5#, $195.00*

Olympia (38 days) F-1 hybrid. An outstanding performer for the fall crop and early winter, Olympia grows fast, producing enormous yields of mostly smooth leaves up to 5x6". Almost entirely lacking in oxalic-acid taste, the mild flavor is paired with lush texture. But Olympia can't stand the heat and bolts quickly when planted in spring. Resistant to DM1,2,3,5,8,9,11,12,14, possibly 16. ❆ ⑤

2512 ***A***: *1/4oz, $3.50*
B: *1/2oz, $4.75*
C: *1oz, $7.75*
D: *4oz, $15.00*
E: *1#, $40.00*
K: *5#, $165.00*

Tundra - Organic (25 days to baby leaf, 45 days to mature) F-1 hybrid. Stunning deep-green true semi-savoy Tundra fills the organic hybrid niche nicely. Tastefully crinkled oval leaves are held off the ground for easy baby-leaf and mature harvests. Mild, simply spinach flavor with tender texture, Tundra is well suited for early spring and fall plantings. Reasonable early summer tolerance, with slow steady growth (like elegant Oceanside) that results in a stunning high-quality winter crop. Customer David Banga who gardens in high-altitude Colorado enthuses, "By far the best spinach I've grown. It grew through 25 freezing nights in May and then a 101˚ heat wave in June." *Note:* Slow growth means fewer winter harvest cycles. Excellent downy mildew resistance. Resistant to DM races 1-13,15,16. ❆ ④

2538 ***A***: *1/4oz, $4.25* ***B***: *1/2oz, $6.00* ***C***: *1oz, $10.50*
D: *4oz, $35.00* ***E***: *1#, $79.00* ***K***: *5#, $245.00*

Oceanside (25–30 to baby leaf, 45 days mature) F-1 hybrid. Like the amazing smooth surfing waves in Oceanside, CA, the leaves of this spinach just keep on coming. Thick but tender, very dark green smooth round oval leaves are upright, perfect for the baby cut. At full maturity, large broad leaves still give excellent silky texture and mild sweet flavor. With our erratic Maine summers, we prize bolt tolerance above all else, and Oceanside delivers in style. Oceanside holds leaf quality, strong color and great taste for more than a month, barely showing signs of going by in early August. The winter crop in Anne Hallee's 2018 hoophouse trial was stunning. A little slower to size up in deep cold than Space, but Oceanside's consistent performance might be the answer to hardiness and disease concerns growers are struggling with. High resistance to DM races 1-9,11,13,15,16,17 & isolate UA201621A. Intermediate resistance to DM races 12,14. ❆ ⑤

2539 ***A***: *1/4oz, $3.50* ***B***: *1/2oz, $5.00* ***C***: *1oz, $7.25*
D: *4oz, $16.75* ***E***: *1#, $46.00*

Bloomsdale (42 days) OP. This classic savoy-leaf spinach pleases with its excellent rich flavor and fully crinkled crumpled form. Much better in fall than in spring when it bolts in the heat. Recent hybrids surpass it in production and bolt resistance. David Landreth, founder of the Landreth Seed Company, developed the original Bloomsdale Spinach, forerunner of this type. ❆

Bloomsdale ②④

2540 ***A***: *1/4oz, $3.00* ***B***: *1/2oz, $3.75* ***C***: *1oz, $5.25*
D: *4oz, $8.50* ***E***: *1#, $16.00* ***K***: *5#, $64.00*

Bloomsdale - Organic ②

2541 ***A***: *1/4oz, $3.65* ***B***: *1/2oz, $5.25* ***C***: *1oz, $8.50*
D: *4oz, $20.00* ***E***: *1#, $54.00* ***K***: *5#, $230.00*

Giant Winter (45 days) OP. Selected for its cold hardiness, Giant brings bountiful harvests late fall to early winter in high tunnels. The large medium-green semi-savoyed leaves overwinter well under mulch. Great flavor and melting texture. Bear in mind midwinter tunnel regrowth for multiple cuttings is slow, and DM resistance is nil. ❆ ②

2555 ***A***: *1/4oz, $3.25* ***B***: *1/2oz, $4.25* ***C***: *1oz, $5.50*
D: *4oz, $10.50* ***E***: *1#, $30.00*

Winter Bloomsdale - Organic (47 days) OP. This superior strain is much slower to bolt in June than standard Bloomsdale, and the dark green savoyed leaves can handle winter in northern hoophouses. Good for single cuttings in cold conditions, with slower regrowth than hardy hybrids. Slower growing and more spreading in habit than standard Bloomsdale, but the full flavor and tenderness has not been sacrificed. Definitely worth a try overwintering under mulch in the stark snowy outdoors. Resistant to CMV and BM, but not to DM. ❆ ① *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Perpetual Spinach: see page 33.
New Zealand Spinach: see page 34.
Caucasian Mountain Spinach: see page 35.

SUMMER SQUASH & ZUCCHINI

Cucurbita pepo

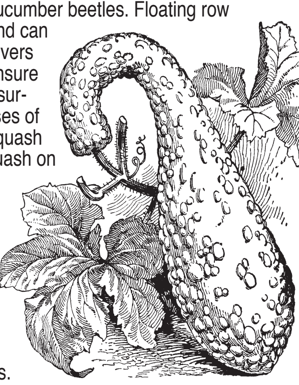
- About 200–320 seeds/oz for yellow, patty pan and Lebanese summer squashes; 1/2 oz packet sows 5–8 hills; 1 oz, 40–60 hills. About 130–240 seeds/oz for zucchini.

- Days to maturity are from seeding; subtract 20 days for transplants.

Culture: Tender, will not survive frost. **Minimum germination temperature 60˚, optimal temperature range 70–90˚.** Sow in hills 4' apart, 5 seeds/hill. Thin to 2–3 best plants. Or start indoors, 25 days before transplanting. Immediately install wire hoops and row cover (page 142) to keep out cucumber beetles. Floating row covers, especially when used in low tunnels, and can hasten maturity by 1–2 weeks. Remove row covers for pollination. Make succession plantings to ensure harvest through the entire frost-free season, insurance against powdery mildew and other diseases of tiring old plants. For best flavor pick summer squash when they are small. Don't leave oversized squash on the vine; it shuts down production.

Squash blossoms are a delicacy. Harvest male blossoms when fully open for salads or stuffing. Male (staminate) blossoms typically precede females (pistillate) by about a week. Females have a bulge at the base of the blossom, an early stage of the fruit forming.

In early summer, a combination of cool, cloudy weather and declining bee populations may result in poor pollination causing low yields. Mites and colony collapse disorder have wiped out a high percentage of wild and domesticated honeybee colonies in the last 20 years, creating a real crisis for cucurbit growers.



Pests & diseases: See sidebar below for additional information.

PM	Powdery Mildew	CMV	Cucumber Mosaic Virus
WMV	Watermelon Mosaic Virus	PRSV	Papaya Ringspot Virus
ZYMV	Zucchini Yellows Mosaic Virus		

YELLOW

Blonde Beauty (40 days) F-1 hybrid. Buttery yellow glossy 5–7" straight fruits are more than just pretty. Fruiting starts early and keeps going, with 10–15 beauties per plant. Open habit with truly spineless petioles means easy painless picking. Best of all, Blonde won our staff taste test for its sweetness and texture. Proved its resistance to powdery mildew in summer 2021, remaining relatively healthy as other varieties buckled. Another fine breeding achievement by the late Brent Loy at the University of New Hampshire. ②

1500 ***A****: 1/16oz, $5.00* ***B****: 1/4oz, $8.75* ***C****: 1/2oz, $13.25*
D*: 1oz, $22.00* ***E****: 4oz, $72.00*

Saffron (42 days) *Dropping all ⑥ suppliers. See page 5. Try **1516** Multipik!*

Delta (42 days) *Dropping all ⑥ suppliers. Try **1539** Early Crookneck!*

Gentry (43 days) *Dropping all ⑥ suppliers. Try **1500** Blonde Beauty!*

Slick Pik YS 26™ (48 days) *Dropping ⑥ suppliers. Try **1500** Blonde Beauty!*

Pest and Disease Remedies for all Cucurbits:

Cucumbers, Summer squash, Zucchini, Winter Squash and Pumpkin

Squash Pest: Striped Cucumber Beetle

- Cultural controls: use tolerant or resistant varieties, use transplants instead of direct seeding, rotate crops, till under crop debris soon after harvest, use floating row covers (p. 142) until flowers appear, use **8418** plastic mulch (p. 141), perimeter trap cropping [**1411** Black Zucchini (p. 66) and **1655** Blue Hubbard (p. 70) make particularly good trap crops], hand-pick early morning when beetles are very sluggish.
- Material controls: **8660** Neem Oil, **8720** Surround, **8735** AzaMax, **8765-8** Pyrethrin (found on pages 144-147).

Pest: Squash Bug

- Cultural controls: rotation, till in cucurbit debris before winter and plant a cover crop, boards on soil surface near squash will attract bugs overnight which can be killed, destroy egg clusters on undersides of leaves, avoid mulching.
- Material controls: **8765-8** Pyrethrin on young nymphs, **8660** Neem Oil, and **8735** AzaMax (found on pages 144-147).

Pest: Squash Vine Borer

- Cultural controls: butternut squash is resistant, maximas & pepos susceptible; rotation, plow in squash vine debris soon after harvest, use floating row covers, watch for wilting plant parts and destroy borer within.
- Material controls: Monitor for adult moths and apply **8762** Spinosad (p. 147) during moth flight and up to one week later. Later applications are ineffective.

Disease: Powdery Mildew

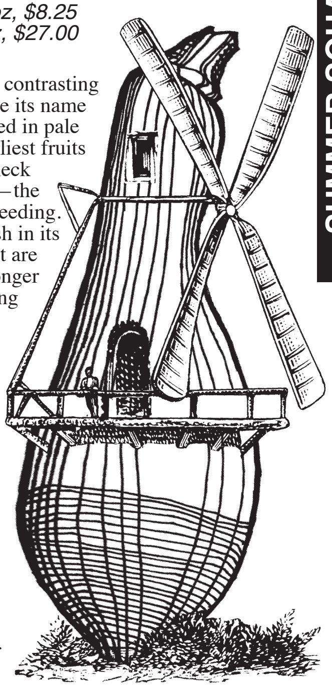
- Cultural controls: Use small plots to slow spread, plant indeterminate (viney) varieties, control weed competition.
- Material controls: **8684-90** sulfur and whole milk; mineral or **8711** Stylet Oil in combination with **8666** MilStop; **8693** Regalia; **8710** Cease. **8672** Copper spray as a last resort. (Products can be found on page 145.)

Disease: Bacterial Wilt

- Cultural control: Striped Cucumber Beetle is vector—control it; choose resistant varieties.

Multipik (50 days) F-1 hybrid. The name speaks for itself: pick these fancy delicious yellow straightneck summer squashes over and over until your family and neighbors never want to see you walking up their driveways with "complimentary" veggies ever again. Curtains will close, lights will flick off, and your knocks will go answered. That's the power of this high yielding squash that has a rich and nutty flavor. Vigorous bush plants want you to pick often between baby stage and 6–8" to keep repeated harvests coming. ⑤

1516 ***A****: 1/16oz, $5.15* ***B****: 1/8oz, $8.25*
C*: 1/2oz, $18.00* ***D****: 1oz, $27.00*
E*: 4oz, $82.00*



Zephyr (54 days) F-1 hybrid. Its unique contrasting color pattern is as refreshing as the breeze its name evokes. Looks like a yellow squash dipped in pale green at the blossom end. Sometimes earliest fruits are yellow with green stripes. A straightneck type often with a slight curve at its neck—the product of the yellow crookneck in its breeding. Also has yellow acorn and delicata squash in its background. Large plants with open habit are easy to harvest and produce nice fruits longer than other varieties. Deborah Jaffe of Long Days Farm in NY sells baby Zephyrs by the pint. We like them at the 4–6" stage. Excellent grilled. ③

1526 ***A****: 1/16oz, $4.50*
B*: 1/8oz, $7.75*
C*: 1/4oz, $14.50*
D*: 1oz, $31.00*
E*: 4oz, $110.00*

Early Summer Yellow Crookneck - Organic (58 days) OP. Deep yellow warted fruits with bulbous shape and narrow curved necks. Best when picked young. Native Americans grew it in the Northeast before it became a standard in early 19th c. American seed catalogs. The 1888 Burpee catalog rather uncomplimentarily described it as "covered with warty excrescences" but called the flavor "excellent." **Indigenous Royalties** ②

1539 ***A****: 1/16oz, $2.95* ***B****: 1/4oz, $5.50* ***C****: 1/2oz, $8.50*
D*: 1oz, $11.00* ***E****: 4oz, $25.00* ***K****: 1#, $85.00*

PATTY PAN

Gourmets call patty pans "scallopini" and consider them the most appetizing of the summer squashes. Were also known as simlins or cymlings a century ago.

Culture: Harvest as tiny buttons or up to fist sized.

Y-Star (48 days) F-1 hybrid. Bright **yellow** uniform scallops with **pale green stars** on the blossom end. Harvested small, they are quite sweet and tender, their open plant habit with minimal spines making them extremely easy to gather. Y-Star really pumps out the fruits over an extended period. In 2010, Donna Dyrek's first ripened July 18, a full two weeks ahead of Benning's, and they kept coming right till the end.

Y-Star ③

1576 ***A****: 1/16oz, $5.95*

Y-Star - Organic ③

1577 ***A****: 1/16oz, $7.50* ***B****: 1/8oz, $12.50* ***C****: 1/4oz, $22.00*
D*: 1oz, $58.00* ***E****: 4oz, $198.00*

Sunburst (52 days) *Dropping all ⑥ suppliers. See page 5. Try **1577** Y-Star!*

Benning's Green Tint (55 days) OP. Also known as Farr's White Bush, developed by Charles N. Farr and introduced in 1914 by F.W. Bolgiano & Co. of Washington, DC. Farr selected for the uniform scallops and the **greenish-cream** coloring in the younger stages of the fruits. Emily's favorite patty pan by far for its "gorgeous graceful shape." Rated by many as the best-tasting summer squash, especially if picked small at 2–3" diameter when they are especially fine-textured and tender. ②

1590 ***A****: 1/8oz, $2.65* ***B****: 1/4oz, $3.85*
C*: 1/2oz, $5.00* ***D****: 1oz, $7.75*
E*: 4oz, $17.00* ***K****: 1#, $49.00*

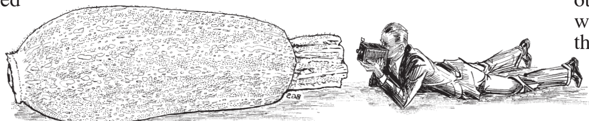
Patty Pan
Squash
FROM FEDCO

LEBANESE

Also called Mid-East or Cousa squashes, Lebanese types typically have white-mottled pale green skin and a blocky bulbous shape.

Alexandria (47 days) *Dropping all ⑥ suppliers. Try **1489** White Bush.*

White Bush (50 days) OP. These robust crawly plants are amazing croppers; yielded 15 fruits per plant in our trial plot. Pick fruits when they are young and tender. One customer insists they should not be allowed to grow beyond 6" and adds that they are delicious in Kousa Mahshi—perhaps she will tell us her recipe. *Marketers note:* must be handled gently so not to scratch. Relentless says better than a hybrid in many ways: "Sublime taste and makes better pickled chips than cucumbers." "Firm and flavorful, not at all watery, scrumptious brushed with olive oil and grilled, then showered with minced basil and mint," advises Elaine Carlson. ③



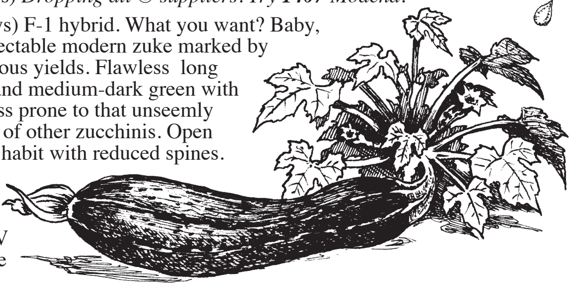
1489 ***A**: 1/8oz, $3.25* ***B**: 1/4oz, $4.00* ***C**: 1/2oz, $5.25*
***D**: 1oz, $7.00* ***E**: 4oz, $12.75* ***K**: 1#, $28.00*

ZUCCHINI *C. pepo*

Eight Ball (40 days) *Dropping all ⑥ suppliers. See page 5. Try a patty pan!*

Jackpot (42 days) *Dropping all ⑥ suppliers. Try **1407** Modena.*

Respect (44 days) F-1 hybrid. What you want? Baby, I've got it: a respectable modern zuke marked by early and continuous yields. Flawless long fruits are glossy and medium-dark green with light flecking. Less prone to that unseemly bulbing tendency of other zucchinis. Open and upright plant habit with reduced spines. Intermediate resistance to PRSV, PM, WMV and ZYMV helps ensure those good yields. ⑤



1410 ***A**: 10 seeds, $5.75* ***B**: 50 seeds, $15.00*
***C**: 100 seeds, $21.50* ***D**: 250 seeds, $44.00*
***E**: 500 seeds, $85.00*

Green Machine - Organic (45 days) F-1 hybrid. A bumper extra-early ongoing crop of medium-dark green shiny zukes is a fun ride all summer. In 2019 we trialed more than 20 modern zuke varieties and compared them to market standard Raven. The results were stunning: despite the listed days to maturity, Green Machine was pumping out easy-to-pick perfect dark zucchinis 7–10 days before Raven. And Raven was outpaced, too: Green Machine made mild nutty dense fruit at a 4:1 ratio all season. While not spineless, the open habit and wide branch spacing allows quick picking of unscratched fruit. Tip-top disease resistance. Intermediate resistance to PM (with best resistance at the end of the cycle in 2021) CMV, ZYMV, WMV. ④

1405 ***A**: 1/16oz, $5.15* ***B**: 1/8oz, $9.25* ***C**: 1/4oz, $16.00*
***D**: 1oz, $50.00* ***E**: 4oz, $150.00*

Modena - Organic (45 days) F-1 hybrid. Glossy dark green Modena was another star of our 2019 trial of more than 20 modern zukes versus market standard Raven. Earlier than Raven, it quickly puts the sleek zuke-production pedal to the metal like a Ferrari Modena 360. The very open upright plant habit ensures easy unscratched harvest and no squash dragging in the dirt. Mild nutty flavor and fine-grained texture add to Modena's refinement. Resistant to PRSV, CMV, ZYMV. White or yellow certified-organic coating. ④

1407 ***A**: 1/16oz, $5.00* ***B**: 1/8oz, $8.50* ***C**: 1/4oz, $13.00*
***D**: 1oz, $42.00* ***E**: 4oz, $145.00*

Spineless Beauty (46 days) *Nothing spineless about dropping Syngenta. Try **1405** Green Machine.*

Raven (48 days) *Quoth the Raven "Nevermore." Try **1410** Respect!*

Black Zucchini (50 days) OP. A misnomer as Black Zucchini is actually dark green. Perfect for home gardeners who are looking for an OP zucchini with superior flavor, but who don't require record-breaking yields. Also popular among some commercial growers. Our top-selling zucchini. Brought from California in 1931 by the Jerome B. Rice Seed Co. of Cambridge, NY. Fruits of greenish-white firm tender flesh with small seed cavities are best picked around 6". The flavor was well above average in our taste tests. Open plant habit makes picking relatively easy. ②④

1411 ***A**: 1/8oz, $2.00* ***B**: 1/4oz, $3.10* ***C**: 1/2oz, $4.15*
***D**: 1oz, $6.15* ***E**: 4oz, $11.65* ***K**: 1#, $23.50*

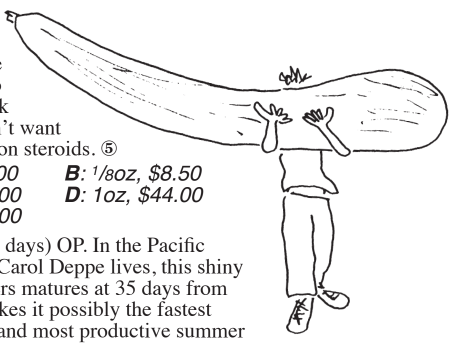
Ladoga - Organic (50 days) F-1 hybrid. A classic green zucchini with high yields and easy harvesting. Bush-type plants are vigorous, long lasting in the field and are semi-spineless, which you'll be glad for when you're harvesting every other day to keep up with the high yields. Pick the dark green attractive uniform fruits at 6–8" long. Adds pizzazz and pop to market displays or dishes when paired with **1427** Golden Rod yellow zuke. ④

1415 ***A**: 10 seeds, $6.75* ***B**: 50 seeds, $18.00*
***C**: 100 seeds, $25.50* ***D**: 250 seeds, $52.00*
***E**: 500 seeds, $95.00*

GOLDEN ZUCCHINI

Sebring (50 days) *Dropping all ⑥ suppliers. Try **1427** Golden Rod!*

Golden Rod (51 days) F-1 hybrid. A precocious **yellow** zucchini, Golden Rod is more likely to get voted into the baseball hall of fame than that other Rod we New Englanders don't mention by name. No cheating needed to knock the flavor and yield stats out of the park for this glossy-fruited, deep-yellow zuke. Open plant habit makes for easier picking and the fruits have a reduced occurrence of green ends compared to other yellow varieties. Pick when 6–8" long—you don't want them looking like they're on steroids. ⑤



1427 ***A**: 1/16oz, $6.00* ***B**: 1/8oz, $8.50*
***C**: 1/4oz, $15.00* ***D**: 1oz, $44.00*
***E**: 4oz, $124.00*

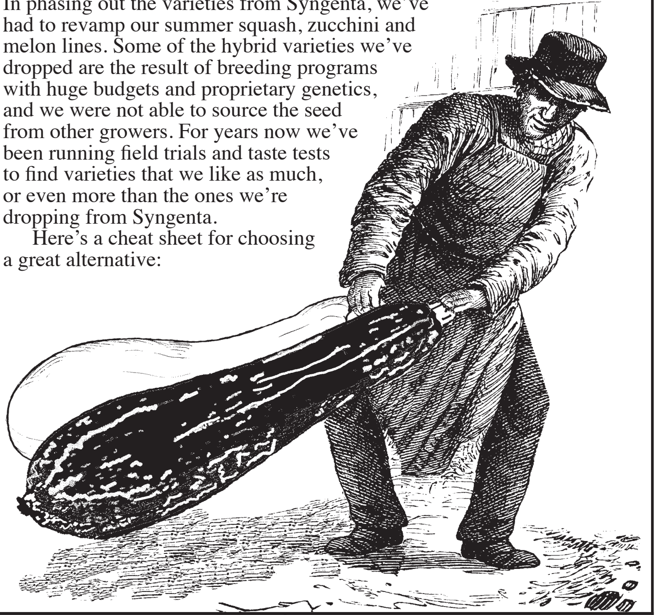
Goldini II - Organic (55 days) OP. In the Pacific Northwest where breeder Carol Deppe lives, this shiny ridged **gold** zucchini of hers matures at 35 days from direct seeding, "which makes it possibly the fastest germinating and growing and most productive summer squash on the planet, including hybrids," she declares. Unlike other zukes that are prime at about 8 oz size, Goldini II reaches peak culinary perfection at about 1 lb. More food, less labor! Carol says it's still good for slicing and drying at 3 lb stage—she adds them to soups all winter. (Market gardeners may have to teach customers that this bigger size is optimal.) Fruits are relatively uniform, but leaves are diverse in shape and color. This is intentional; the heterogeneity adds to the vigor. As Carol avers, "If you want squash plants that are uniform for traits that don't matter, grow something else." She advises to harvest with gloves. "These plants are not open architecture, which requires plants short on leaves," she says. "Plants grow and yield better if they have leaves." Makes sense! **Breeder Royalties. OSSI** ①

1530 ***A**: 1/16oz, $4.25*

Why did we drop so many summer squash and zucchini varieties this year? (Don't worry, you'll be ok.)

In phasing out the varieties from Syngenta, we've had to revamp our summer squash, zucchini and melon lines. Some of the hybrid varieties we've dropped are the result of breeding programs with huge budgets and proprietary genetics, and we were not able to source the seed from other growers. For years now we've been running field trials and taste tests to find varieties that we like as much, or even more than the ones we're dropping from Syngenta.

Here's a cheat sheet for choosing a great alternative:



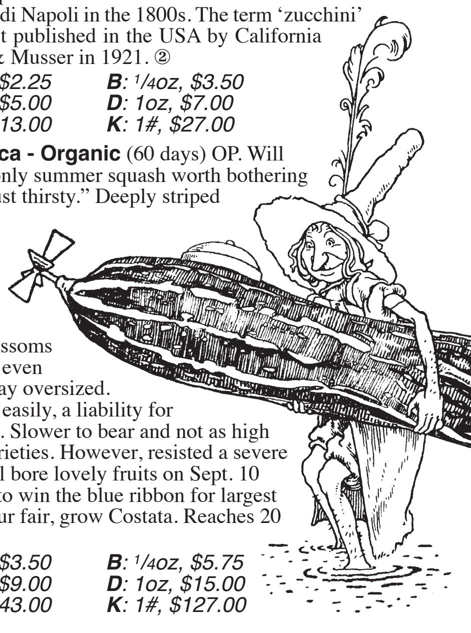
Dropped:	Try instead:
Saffron summer squash	**1516** Multipik
Delta summer squash	**1539** Early Summer Crookneck
Gentry summer squash	**1500** Blond Beauty
Slick Pik YS 26 summer squash	**1500** Blonde Beauty
Sunburst patty pan	**1577** Y-Star
Alexandria Lebanese squash	**1489** White Bush Lebanese
Eight Ball zucchini	**1577** Y-Star and **1590** Benning's Green are also good for stuffing!
Jackpot zucchini	**1407** Modena
Spineless Beauty zucchini	**1405** Green Machine or **1407** Modena
Raven zucchini	**1410** Respect or **1405** Green Machine
Sebring golden zucchini	**1427** Golden Rod

We ship seeds to Canada!

RIBBED & STRIPED ZUCCHINI

Cocozelle (53 days) OP. Rich-flavored zucchini ribbed with light green stripes. A bit more slender and graceful than Costata and not quite as ribbed or blocky. Easier to harvest at a smaller desirable (but not baby) size, compared to Costata, which drops its blossom when it feels like it. This Italian heirloom was called Cocozella di Napoli in the 1800s. The term 'zucchini' (little gourd) was first published in the USA by California seed house Aggeler & Musser in 1921. ②

1434 ***A**: 1/8oz, $2.25* ***B**: 1/4oz, $3.50*
***C**: 1/2oz, $5.00* ***D**: 1oz, $7.00*
***E**: 4oz, $13.00* ***K**: 1#, $27.00*

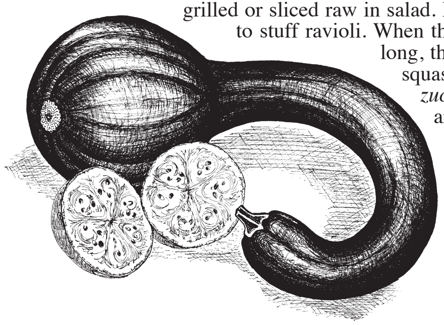


Costata Romanesca - Organic (60 days) OP. Will Bonsall calls it "the only summer squash worth bothering with, unless you're just thirsty." Deeply striped and ribbed, Costata resembles Cocozelle but with a distinctive sweet mildly nutty flavor. Also a productive source for tasty male squash blossoms and good for stuffing even when the fruits get way oversized. Tender skin damages easily, a liability for commercial transport. Slower to bear and not as high yielding as hybrid varieties. However, resisted a severe PM epidemic and still bore lovely fruits on Sept. 10 in 2016. If you want to win the blue ribbon for largest summer squash at your fair, grow Costata. Reaches 20 lb in a good year. ①

1457 ***A**: 1/8oz, $3.50* ***B**: 1/4oz, $5.75*
***C**: 1/2oz, $9.00* ***D**: 1oz, $15.00*
***E**: 4oz, $43.00* ***K**: 1#, $127.00*

ZUCCHINI RAMPICANTE *C. moschata*

Tromboncino (60 days summer squash, 90 days winter squash) OP. Tender, mild, sweet and nutty when harvested as summer squash at 8–12". "Out-tastes 95% of the Zuke pack," declares Relentless. Delicious steamed, grilled or sliced raw in salad. Italians use it in gnocchi and to stuff ravioli. When the green-tan fruits grow very long, they are good baked as winter squash. As might be inferred from *zucchini rampicante*, its vines are rampant and should be trellised. ②

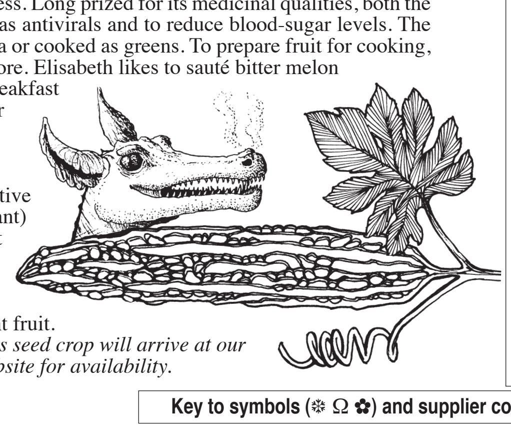


1460 ***A**: 1/8oz, $3.25*
***B**: 1/4oz, $5.25*
***C**: 1/2oz, $8.00*
***D**: 1oz, $12.00*
***E**: 4oz, $34.00*
***K**: 1#, $95.00*

BITTER MELON *Momordica charantia*

About 130 seeds/oz. Tricky to germinate. Use nail clippers to snip away a tiny bit of the hard seed coat, avoiding the pointy germ end. Soak seeds overnight. Fold them into a moist paper towel, and tuck it into a sealable bag. Keep at 80–90° and begin to check seeds after 2–3 days. When the seeds are split open and beginning to show white rootlets, transfer them into their pots, and keep them warm. Transplant once they have true leaves and danger of frost has passed. They love the heat!

Jade Dragon (65 days) F-1 hybrid. Bright pastel-green bumps and fluting cover the curvaceous lines of this well-named 8–14" beauty, looking every bit the jade dragon. Botanically, it is neither a melon nor a gourd. Don't be put off by the English name 'bitter melon'—instead, think balsam pear of Asia or karela of India, where it is a well-regarded tropical vegetable with rich flavor and pleasing bitterness. Long prized for its medicinal qualities, both the leaves and fruits are used as antivirals and to reduce blood-sugar levels. The leaves can be made into tea or cooked as greens. To prepare fruit for cooking, first scoop out the pulpy core. Elisabeth likes to sauté bitter melon in butter and have it for breakfast with eggs and rice. Juniper Farm, in Québec north of the 45th parallel, trialed 7 varieties and declared this one the best: early, productive (with about 3 fruits per plant) and oh so beautiful, "a gift to grow." Plant in the warmest spot in your garden or hoophouse, and use a trellis for straight fruit.



③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Thinking Beyond Heirlooms

Heirloom varieties and the stories they carry have come to hold an almost mythical status in farming and gardening culture. We sing their praises for superior flavor, nutrition and history as compared to their modern and hybrid counterparts. An heirloom, by definition, is an object of value preserved and passed down from generation to generation. When applied to plants, the definition becomes slippery. Some say a cultivar must be at least 100 years old to be considered an heirloom; some say 50 years; while others pinpoint the year 1945, which marks the end of World War II and the beginning of the widespread introduction of hybrid varieties. After that, seed companies helped solidify the concept of heirloom varieties by listing them alongside their stories, and distributing them far and wide.

For many of us, the stories seed catalogs tell of heirlooms are as delectable as the vegetables themselves. While these varieties and stories are invaluable, the ways heirlooms have been preserved commercially is not fully serving them or us. While heirlooms like fine china or jewelry can be preserved on a shelf or in a museum indefinitely, our living seed heirlooms are not well poised to withstand the changing conditions of the next 50 to 100 years.

Chris Smith of the Utopian Seed Project is passionate about seeds, seed-saving and helping build resilient and equitable food and farming systems. He says, "As a community of seed savers, we are grasping onto something that is lost but we are missing the important part. What we have to grasp onto is the one-paragraph stories in seed catalogs because they feel important, but the bigger picture is that there has been an entire collapse of the connection. We need to be connected to the land and the seeds and the people. Not to somebody else's story."

Often when we talk about seed saving, we're talking about preserving genetics that worked for someone else, somewhere else, a hundred years ago. This static approach has consequences. At this point, many heirloom varieties have undergone years of inbreeding. Due to this lack of genetic diversity, they are not able to stand up to the current pressures of disease, pests and climate chaos. These plants are finding themselves in a world they don't recognize and don't know how to survive in.

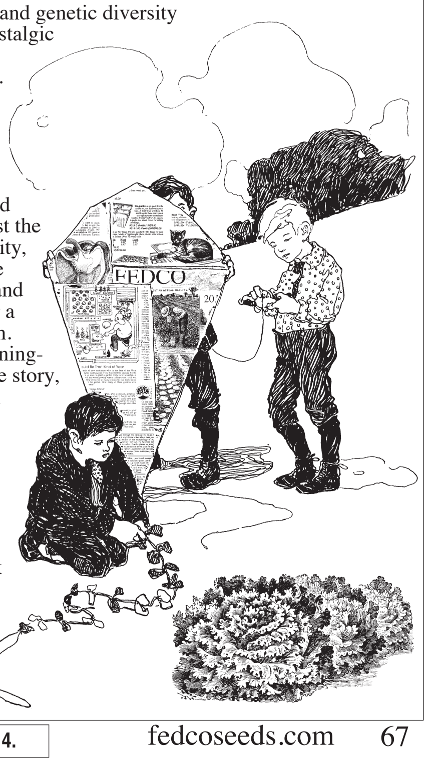
So where do we go from here? Chris advocates for "relational seed saving" and selecting for the future. He reminds us of what people have known and practiced for generations: that ongoing coevolution of seeds with people within communities keeps varieties dynamic. "A fluid process of saving, preserving, and exchanging seeds allows for regional adaptation and transformation over time," he says. "This process results in seed diversity at the crop, variety and genetic level."

This approach is playing out in The Utopian Seed Project's Collard UltraCross. A community of seed savers is helping to select 21 inter-crossed heirloom varieties towards a cold-hardy, beautifully diverse and delicious collard mix. Seeds for Collard UltraCross—offered through Southern Exposure Seeds, Ujamma Seeds, and Working Food—have the ability to jump-start community-based seed keeping.

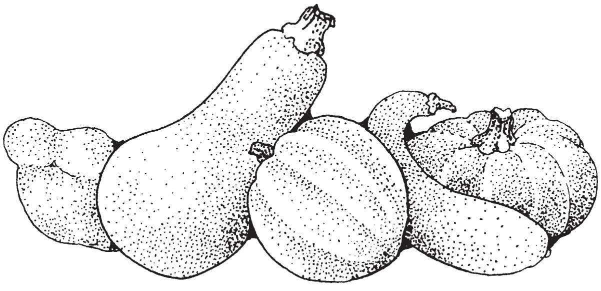
Fedco currently offers similar mixes, such as the new **293** PB&J Nebula Dry Bean Gene Pool (a start to a "choose your own adventure" bean seed saving) as well as selections with intentional genetic diversity like **2129** Golden Grex Beet, **2128** Three Root Grex Beet, **3249** Purple Rapa Mix Gene Pool, **3229** Mizspoona Salad Selects Gene Pool, **4105** Pink Princess Gene Pool, **2762** Camo Oakheart Lettuce and **2984** Freedom Lettuce Gene Pool.

Relational seed saving and genetic diversity transcend the charming nostalgic idea of a time before the commercialization of seed. Diversity is essential for biological success, especially in these times of climate chaos, and is therefore essential for a resilient and sovereign food system. We must move past the goal of purity and uniformity, and of recreating that same one-paragraph story over and over, and instead allow for a more imaginative approach.

Human beings are meaning-making creatures; we crave story, which is why the heirloom holds such a deep appeal. But instead of continuing to treat heirloom seeds as treasured unchanging objects, we can shift our view and see ourselves as part of their ongoing stories. Let's get seed back into a community process of selecting, saving and exchanging, that looks different all over the world. Let's write the next paragraph.



WINTER SQUASH & PUMPKINS



Cucurbita spp.

- Days to maturity are from direct seeding; subtract 20 days for transplants.

Culture: May be direct-seeded or transplanted. **Minimum germination soil temp 60°, optimal temperature range 70–90°.** Direct seeding: Sow 4–5 seeds per hill when weather has warmed after danger of frost. Allow 4–6' between hills. Thin to 3 best plants. Transplanting: Start indoors 3 weeks before setting out. Do not disturb the roots. Transplant bush varieties 18" apart, vining varieties 30" apart. For either method, use row covers and low tunnels (page 142) to hasten maturity and reduce insect damage. Heavy nitrogen feeders. Excessive heat and/or drought can prevent blossom set, reduce yields. Winter squash can take one or two light frosts on the vine.

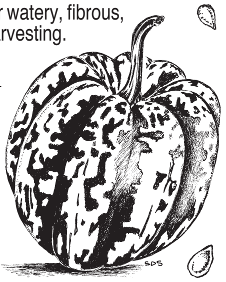
Diseases:

BR	Black Rot
PM	Powdery Mildew

Pests: To combat squash bugs without using pyrethrin or neem: protect young plants with wire hoops and row covers (p. 142). Striped cucumber beetles and squash bugs overwinter in squash residues so burn or haul these away at season's end rather than cold composting them. Squash bugs lay their brown or brick-red egg clusters on the underside of the foliage, often next to the central vein. Hand-picking bugs in June and July will mitigate an endemic problem and greatly reduce squash bug damage.

ACORN *C. pepo*

About 270 seeds/oz; 1/8 oz packet sows 6–7 hills. Dr. Brent Loy found that acorn squash often are not fully ripe even when they attain full size and color. They continue to develop sugars until 45 days after pollination. Do not harvest until most of the fruits display an orange ground spot. Much of the Acorn's reputation for watery, fibrous, inconsistent eating quality is probably the result of premature harvesting.



Carnival (85 days) F-1 hybrid. Carnival will give your senses a thrilling ride: first treating your eyes to a kaleidoscope of colors, each fruit flecked with shades of green, gold and yellow, no two exactly alike. Then wafting to your nostrils with its nutty squash aroma as it bakes, finally thrilling your taste buds with its full-bodied sweetness. This semi-bush acorn type produces medium-sized fruits near the crowns for easy picking. Jason Kafka reported outstanding success growing Carnival and Sweet Mama (p. 71) on landscape fabric. A marvelous seller at farmers markets. Will store for many months. Note: color variation is a function of temperature. In high temperatures Carnival will have less yellow and gold and more green. ⑤

***1605** A: 1/8oz, $5.50 B: 1/4oz, $8.25 C: 1/2oz, $15.25*
D: 1oz, $26.50 E: 4oz, $88.00

Thelma Saunders - Organic (85 days) OP. Perhaps the most delicious acorn squash we've ever tasted. Unusual light tan 7–8" long 1-lb fruits have sweet smooth chestnut-flavored flesh. Matures early and bears abundantly, with an average of 5 squash per plant. Originally from Thelma Saunders of Kirksville, MO, the seed was passed from Evert Pettit to Ohio squash collectors Sue and Tom Knoche—all early members of Seed Savers Exchange. Thelma called this "sweet potato squash" because they taste "better than sweet potatoes." ① **NEW!**

***1607** A: 1/8oz, $4.00 B: 1/4oz, $6.50 C: 1/2oz, $10.50*
D: 1oz, $18.00 E: 4oz, $60.00

Sweet REBA - Organic (90 days) OP. REBA stands for Resistant Early Bush Acorn. Even if you are acorn-averse, try REBA because this Cornell release is one of the sweetest acorns, flesh dry and substantial. Despite compact bush habit, heavy yields of 1–1½ lb fruit. Janine Welsby harvested 25 squash from four plants. They sold so fast that she didn't get to try one "but everyone said they were delicious." Resists PM, helping sugars develop. ①③

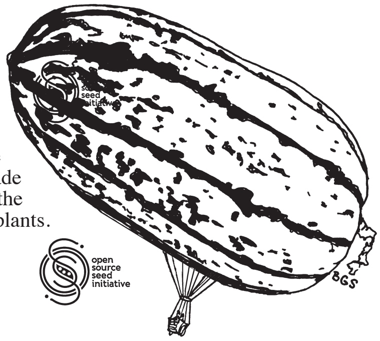
***1606** A: 1/8oz, $3.75 B: 1/4oz, $6.00 C: 1/2oz, $10.00*
D: 1oz, $18.00 E: 4oz, $65.00

Table Queen (90 days) OP. Black-green ribbed 1½–2 lb fruits good for baking. Dry flesh is best eaten within 3–4 months after harvest. Introduced by the Iowa Seed Co. in 1913 and once known as Des Moines, Queen began a trend away from monster squashes in favor of smaller fruits. A similar squash was grown by the Arikara tribe in North Dakota. ②

***1608** A: 1/4oz, $3.00 B: 1/2oz, $4.25 C: 1oz, $6.25*
D: 4oz, $13.00 E: 1#, $40.00

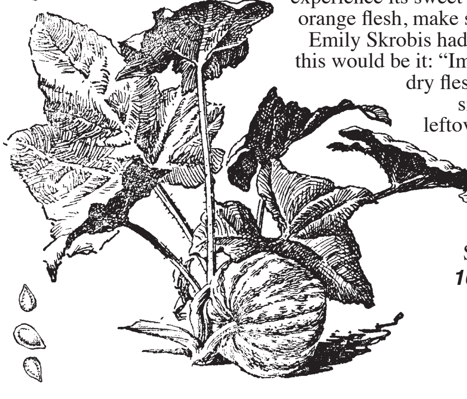
DELICATA & DUMPLING *C. pepo*

About 440 seeds/oz. 1/8 oz packet sows about 10 hills.



Zeppelin Delicata - Organic (100 days) OP. Lovely ivory-colored oblong 1 lb fruits with dark green stripes have the unsurpassed sweetness that gives Delicata its good reputation. In storage the green stripes turn orange and the cream background sometimes yellows. No need to peel—cooked skins are tender and nutty. Frank Morton made this the new standard by selecting the regional delicata strain for stocky plants. **Breeder Royalties. OSSI** ①

***1611** A: 1/16oz, $3.50*
B: 1/4oz, $6.25
C: 1/2oz, $10.00
D: 1oz, $17.00
E: 4oz, $42.00
K: 1#, $160.00



Sweet Dumpling (100 days) OP. Stunning 1–1½ lb ivory-colored green-striped fruits shaped like miniature pumpkins sell themselves on the stand. *New York Times* food writer Regina Schrambling called them the "avocados of squash" for their inherent buttery richness and sweet-tangy taste. To experience its sweet dry and memorably rich deep orange flesh, make sure your Dumpling is ripe. If Emily Skrobis had to choose one winter squash, this would be it: "Immensely flavorful with sweet dry flesh, just how I like it. A perfect size for dinner for two without leftovers. Underrated!" Introduced by Sakata Seed Corp. of Yokohama, Japan, in 1976 and marketed as Vegetable Gourd. Sold better after they changed its name to Sweet Dumpling. ②

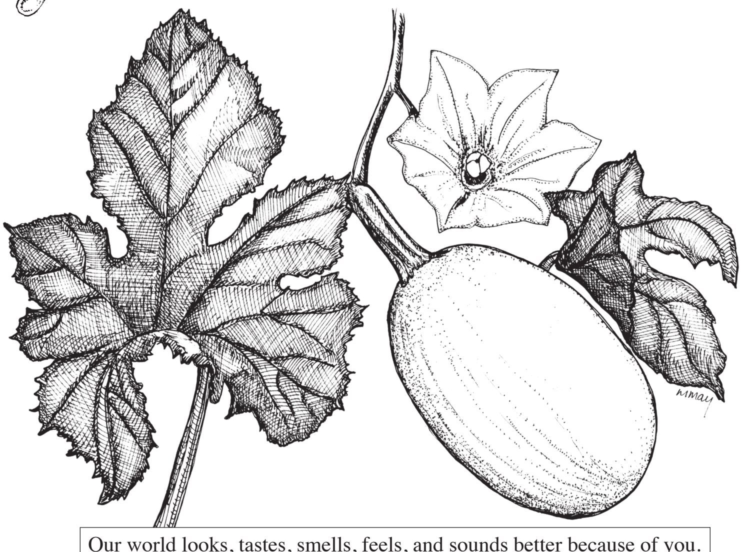
***1614** A: 1/8oz, $3.15*
B: 1/4oz, $4.35
C: 1/2oz, $7.15
D: 1oz, $12.25
E: 4oz, $27.00
K: 1#, $69.00

SPAGHETTI *C. pepo*

About 190 seeds/oz. 1/4 oz packet sows 10 hills.

Spaghetti (88 days) OP. Oblong fruits, generally around 4 lb with spaghetti-like strings in the flesh. Penny Kupinski of Harrisburg, MO, took us to task for damning spaghetti squash with faint praise. "From your description you may not have had truly ripe spaghetti squash which is a deep gold. Pale yellow is nowhere near ripe and tasteless and tough. Takes a long time to mature even here…but has a wonderful nutty flavor when ripe and needs only a little salt and pepper to be excellent…It is also a great keeper." Plenty of customers agree with her—we now sell more than 50 lb of seed each year. First commercialized by Sakata in Japan in 1934 and brought to the States by Burpee two years later. ⑤

***1616** A: 1/4oz, $3.25 B: 1/2oz, $4.25 C: 1oz, $6.50*
D: 4oz, $15.00 E: 1#, $47.00



Our world looks, tastes, smells, feels, and sounds better because of you.
– Susan from Auburn, ME

Free shipping for seed orders $50 and up!

BUTTERCUP *C. maxima*

About 150 seeds/oz. 1/4 oz packet sows about 7 hills.

Buttercup squashes, the main type grown in the Northeast, account for about 19% of New England winter squash sales. Fat round stems turn corky and woody when the squash is ripe; green in the stem signifies immature fruit.

Burgess (95 days) OP. New England's favorite winter squash, enjoyed for its sweet deep-orange flesh. Fruits, with an acorn-shaped button on the blossom end and flattened shoulders, average 3–4 lb with about 4 per plant. Stem is well dried when ripe. The original buttercup strain showed up in 1925 as a chance cross between Quality and Essex Hybrid in the trial garden at North Dakota Agricultural Experiment Station. After further selection by famous seedsman Albert Yaeger, Oscar H. Will of Bismarck introduced it in his 1931 catalog. Alan Kapuler has said, "If you pick only one squash to grow this is it." Jean Kennedy of Little Red Barn Produce in OR agrees: "Its texture is perfectly smooth, it has just the perfect sweetness and its flavor isn't overly squashy. Could be used in any recipe for dessert or dinner." ②

1628 ***A**: 1/4oz, $3.25* ***B**: 1/2oz, $4.75* ***C**: 1oz, $7.50*
***D**: 4oz, $19.00* ***E**: 1#, $48.00*

Bonbon (95 days) F-1 hybrid. CR was reluctant to add hybrids where we have perfectly good OP varieties in the catalog. However, a dozen years after Johnny's won an AAS award for Bonbon, we decided to give this superior variety its due. Bonbon's advantages over the old Burgess strain are slight, but across the board they add up. First, consistency. Burgess can be variable, and in stressed seasons that may matter. Second, productivity. At 4–5 lb Bonbon is slightly the larger of the two, and at 4 fruits per plant, may yield more fruits as well. Third, appearance. Bonbon never fails to have the prominent grey button at its base that is the hallmark of the true buttercup. Fourth, flavor. Each at its best has superb flavor, but Bonbon is more likely to deliver it. Under highly fertile and favorable conditions, as when CR's rampant vines crawled through a manure pile during the very warm 2015 season, production can be astonishing. ③

1629 ***A**: 1/4oz, $6.25* ***B**: 1/2oz, $11.00*
***C**: 1oz, $19.00* ***D**: 4oz, $70.00*

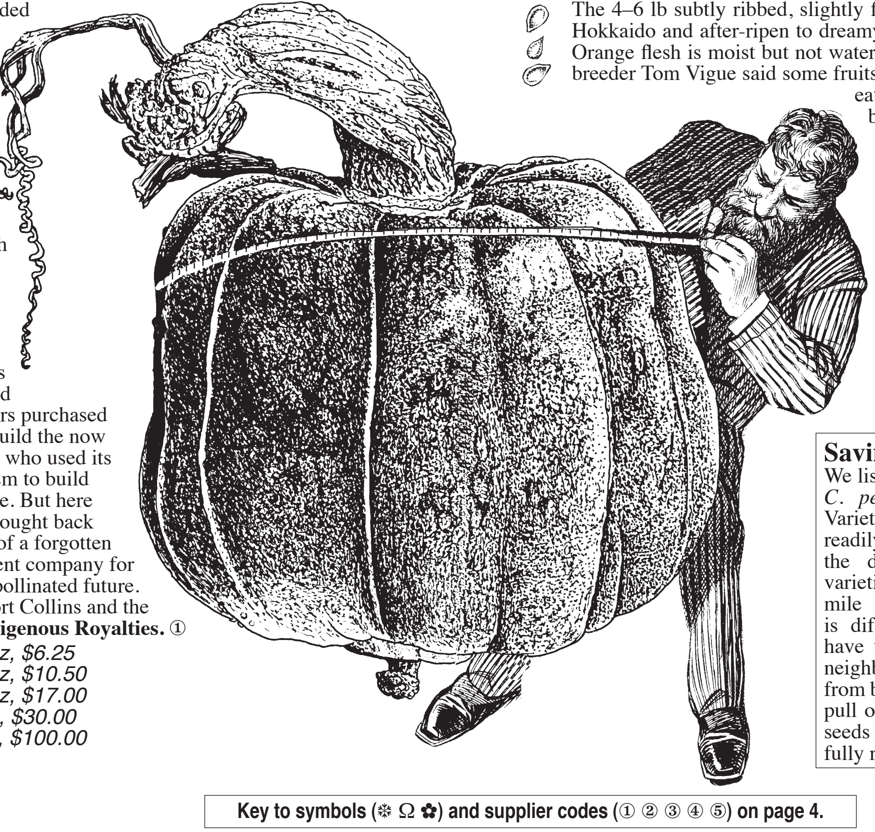
Uncle David's Dakota Dessert - Organic (95 days) OP. David Podoll calls this strain "the original buttercup." It has been in his family for 70 years. They've been selecting it for 40 years, crossing it with hubbards and other maximas, primarily for color, taste, sweetness, and vigor and hardiness in cold weather, but also for thick flesh, small seed cavities and higher productivity. The Podoll family bake it into pies without using any other sweetener. Also a versatile main-dish squash, with all the character that makes buttercup a New England favorite. **OSSI** Ω ①

open source seed initiative

1630 ***A**: 1/4oz, $4.95* ***B**: 1/2oz, $6.75* ***C**: 1oz, $11.50*
***D**: 4oz, $37.50* ***E**: 1#, $129.00*

Seneca - Organic (110 days) OP. When the original Buttercup was released in North Dakota back in 1931, its fame quickly spread to New England. Burgess was the buttercup for breeders to beat, and in the early '40s family-run Robson Seeds of Hall, NY, released Seneca: more vigorous viny-ness, higher yields and larger fruit with blocky turban shape, rounded shoulders and an outie cup. Robson Seeds continued on to become renowned for breeding hybrids for the Northeast, but OP Seneca was left to languish in the USDA Fort Collins seed bank. Former Fedco staffer Heron was allowed a sample of Seneca, and he's been saving its seed ever since. Investors purchased Robson Seeds to build the now infamous Seminis, who used its excellent germplasm to build their unholy empire. But here at Fedco, we've brought back some of the glory of a forgotten regional independent company for the adapted open-pollinated future. Many thanks to Fort Collins and the GRIN system. **Indigenous Royalties.** ①

1631 ***A**: 1/8oz, $6.25*
***B**: 1/4oz, $10.50*
***C**: 1/2oz, $17.00*
***D**: 1oz, $30.00*
***E**: 4oz, $100.00*



KABOCHA *C. maxima*

About 160 seeds/oz. 1/8 oz packet sows 4 hills.

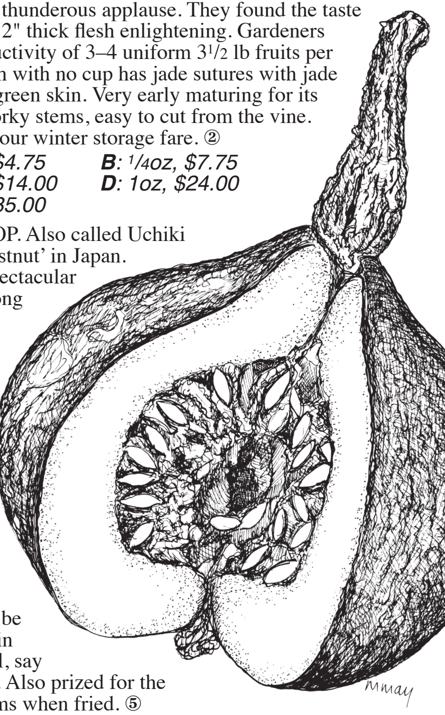
Kabocha is a Japanese "pumpkin." Kabochas look like buttercups without the protruding cup on the blossom end.

Sweet Mama (88 days) F-1 hybrid. Mama is a grey-green 4x8" drum-shaped kabocha type with rounded shoulders and no cup. A week earlier than Burgess with outstanding sweet flavor. Among CR's favorite large winter squash, dependable Mama, averaging 4–6 lb, pleases commercial growers as well as home gardeners. 1979 AAS. ⑤

1624 ***A**: 1/16oz, $5.00* ***B**: 1/4oz, $12.00* ***C**: 1/2oz, $21.00*
***D**: 1oz, $35.00* ***E**: 4oz, $135.00*

Thunder (88 days) F-1 hybrid. Our taste testers greeted this kabocha/buttercup hybrid with thunderous applause. They found the taste of its dry sweet dense 2" thick flesh enlightening. Gardeners will also like its productivity of 3–4 uniform 3 1/2 lb fruits per plant. The 7x4" squash with no cup has jade sutures with jade splotches over forest green skin. Very early maturing for its type and, with long corky stems, easy to cut from the vine. Add a little boom to your winter storage fare. ②

1625 ***A**: 1/8oz, $4.75* ***B**: 1/4oz, $7.75*
***C**: 1/2oz, $14.00* ***D**: 1oz, $24.00*
***E**: 4oz, $85.00*



Red Kuri (92 days) OP. Also called Uchiki Kuri; *kuri* means 'chestnut' in Japan. Growers admire its spectacular red-orange fruits, among the most attractive of all squashes. Its flavor elicits a wide range of comments from "the best winter squash" to "glorified zucchini, flavor like water." Liking the dry flesh of this Japanese squash, we think the truth lies somewhere in between. Teardrop-shaped fruits avg 3–4 lb. Though reputed to be good keepers, their thin skins do not store well, say members of one CSA. Also prized for the aroma of their blossoms when fried. ⑤

1626 ***A**: 1/8oz, $4.55* ***B**: 1/4oz, $7.25* ***C**: 1/2oz, $13.50*
***D**: 1oz, $21.75* ***E**: 4oz, $67.75*

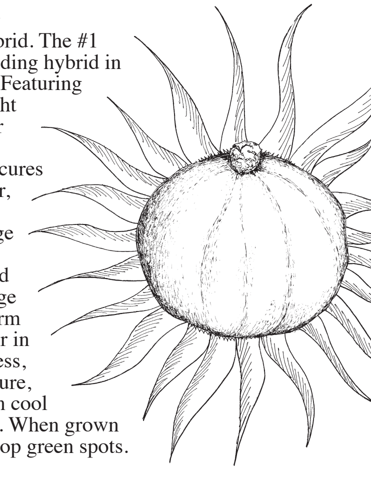
Turtle Moon Blue Kuri - Organic (95 days) OP. Yummy good eating combined with long storage—who could ask for more? More, you say? The 4–6 lb subtly ribbed, slightly flattened 6x5" fruits are greyer than Blue Hokkaido and after-ripen to dreamy buff chestnut-brown with a blue sheen. Orange flesh is moist but not watery, with peak flavor in February, although breeder Tom Vigue said some fruits keep into June or July and are still good eatin'. Mashes into a luscious pudding just by itself, and Tom is partial to a Three Sisters Pie of squash, beans and corn. In a drought year the vigorous vines produced 2–3 fruits per plant, with higher yields expected in an easier season. ❧2022. **Breeder Royalties. OSSI** applied for. ①

1623 ***A**: 1/8oz, $5.25*
***B**: 1/4oz, $7.75*
***C**: 1/2oz, $14.50*
***D**: 1oz, $23.00*
***E**: 4oz, $66.00*

Saving squash seed is challenging!

We list three species of the genus *Cucurbita*: *C. pepo*, *C. maxima* and *C. moschata*. Varieties of the same species will cross readily, but crossing will not occur between the different species. You must isolate varieties of the same species by half a mile if you want true-to-type seed. This is difficult for most gardeners—you may have to communicate and collaborate with neighboring gardeners, or exclude insects from blossoms and hand-pollinate. If you can pull off the variety isolation, processing the seeds is easy: rinse seeds from the guts of fully ripe and cured squash. Dry and store.

more KABOCHA



Eastern Rise (95 days) F-1 hybrid. The #1 squash in China and the best-yielding hybrid in our trial, besting **1635** Sunshine. Featuring a creamy texture with just the right sweetness, Rise's heavenly flavor won unanimous praise from our feisty warehouse tasting crew. It cures reliably, even in poor fall weather, coming into full flavor after December with almost no spoilage until after February. Average 3½ lb fruits, attractive orange-red streaked with green, flattened large buttercups without the turban. Firm orange flesh with rich nutty flavor in perfect balance, the right sweetness, the right moistness, the right texture, smooth and hearty. Grows well in cool conditions; dislikes extreme heat. When grown in inadequate sunlight may develop green spots. PM tolerant. ③

1633 ***A**: 1/16oz, $4.55* ***B**: 1/8oz, $7.15* ***C**: 1/4oz, $13.25*
***D**: 1/2oz, $23.50* ***E**: 4oz, $85.00*

Sunshine (95 days) F-1 hybrid. Johnny's AAS winner combines the spectacular scarlet color of a Red Kuri with a sublime eating quality previously lacking in red squash. The bright orange flesh, dry yet tender, sweet yet meaty, has tested as high as Brix 15. The short-vined plants give a fair harvest of these cheerful round-shouldered slightly flattened fruits. One year we had 14 averaging 4.4 lb each from just three hills. Its thin skins do not cure well in cold wet autumns and can be damaged around stems and shoulders by light frosts. Kristen Davenport of Boxcar Farm in Washington disagrees about the relative storage capabilities of Sunshine and Eastern Rise: "Sunshine was our longest storing squash with the exception of our local Maxima Hubbard type, better than any kabocha or acorn…as of Jan. 4 they are still good, hard, flesh perfect and a little sweeter than in the fall." ③

1635 ***A**: 1/8oz, $5.00* ***B**: 1/4oz, $8.50* ***C**: 1/2oz, $15.75*
***D**: 1oz, $27.00* ***E**: 4oz, $83.00*

HUBBARD *C. maxima*

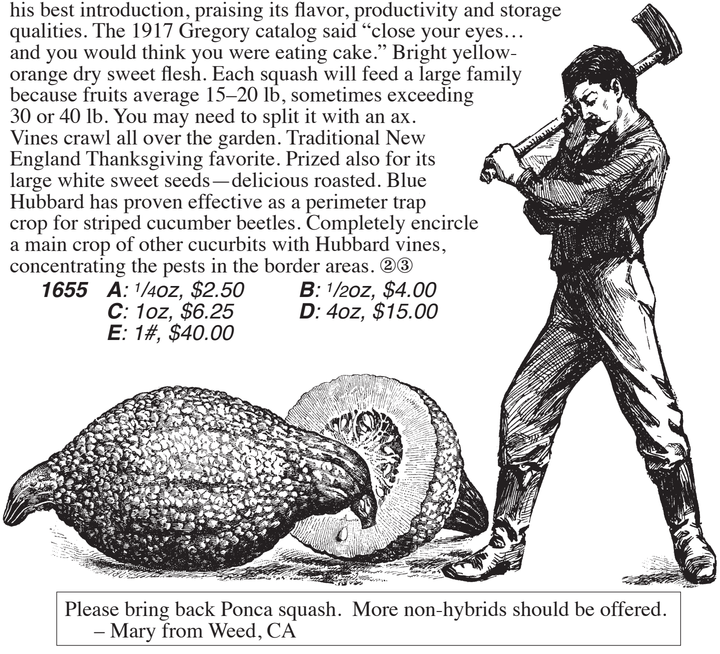
About 95 seeds/oz. 1/8 oz packet sows 3 hills.

James J.H. Gregory, who introduced hubbards to commerce around 1850, called them "the acme of perfection in squashdom," though they now account for only about 5% of New England winter squash sales.

Baby Blue Hubbard - Organic (95 days) OP. For home gardeners with space limitations, a scaled-down version of **1655** Blue Hubbard developed at the University of New Hampshire from a 1953 cross between Blue Hubbard and Bush Buttercup. Baby Blue's vines are much more compact and its fruits much smaller (about 4–5 lb), but their flavor at maturity doesn't match up to those traditional large hubbards and their yield is lower, too. ①③ *We're not sure when this seed crop will arrive. Check our website for availability.*

Blue Hubbard New England strain (100 days) OP. Introduced in 1909 by Gregory as Symmes Blue Hubbard, in honor of S.S. Symmes, a gardener who worked for his company for many years. Gregory considered it his best introduction, praising its flavor, productivity and storage qualities. The 1917 Gregory catalog said "close your eyes… and you would think you were eating cake." Bright yellow-orange dry sweet flesh. Each squash will feed a large family because fruits average 15–20 lb, sometimes exceeding 30 or 40 lb. You may need to split it with an ax. Vines crawl all over the garden. Traditional New England Thanksgiving favorite. Prized also for its large white sweet seeds—delicious roasted. Blue Hubbard has proven effective as a perimeter trap crop for striped cucumber beetles. Completely encircle a main crop of other cucurbits with Hubbard vines, concentrating the pests in the border areas. ②③

1655 ***A**: 1/4oz, $2.50* ***B**: 1/2oz, $4.00*
***C**: 1oz, $6.25* ***D**: 4oz, $15.00*
***E**: 1#, $40.00*



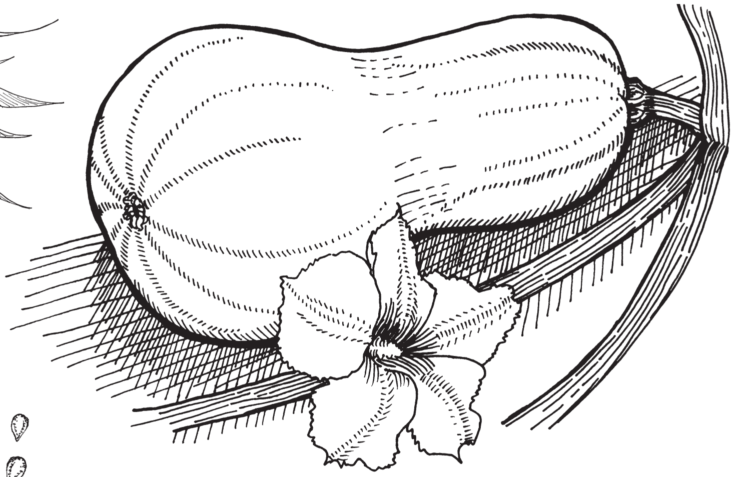
> Please bring back Ponca squash. More non-hybrids should be offered.
> – Mary from Weed, CA

BUTTERNUT *C. moschata*

About 360 seeds/oz. 1/8 oz packet sows 9 hills.

Culture: Butternuts should be started indoors to mature in our climate.

Butternut was introduced in 1936 by Joseph Breck and Sons of Boston, out of Canada Crookneck, an 1800s variety. The best keepers and the squash of choice in Zones 6 and south because of their relative resistance to the squash vine borers that torment other species. See also **1740** Cheese Pumpkin, p. 72.



Burpee's Butterbush - Organic (87 days) OP. "Hands down the best" of the nine different butternuts Mark Fulford tried over the years. Smooth tan 2–3 lb fruits with long necks, small seed cavities and deep reddish-orange flesh are "as sweet as the best sweet potatoes." Superior nutty flavor, moist but never watery—though not as moist as the larger butternuts. Its earliness is a boon in cold summers. Emily's go-to butternut for its reliability, and manageable fruit size and plant habit. Though named and classed as a bush butternut, more accurately they have determinate vines that can crawl up to 10' in good fertility. Still a big advantage where space is precious. Average yield is 3–5 ripe fruits per plant. Excellent keeper. ①

1683 ***A**: 1/16oz, $3.60* ***B**: 1/4oz, $6.15* ***C**: 1/2oz, $10.25*

Little Dipper (104 days) OP. F-1 hybrid. In 2015, we trialed a slew of those personal-size, supposedly powdery-mildew–resistant, hybrid butternuts. We were shocked to find that all but one variety melted down and yielded poorly. The small struggling vines in most of those we tried had correspondingly low yields. Little Dipper's eruption of green stood in sharp contrast. Dipper's plethora of uniform pale-tan 2–3 lb fruits are set on fully running weed-suppressing vines. We harvested an impressive 22 fruits from 3 plants. Customer Katie Springman, after reading our description, planted with a self-described shrug and a "whatever," but now she will be looking for them again. They covered a 25' slope in Berkshire Co, MA, and were very productive, most weighing 3¾ to 5½ lb. "And they're wonderful." Open-pollinated Burpee's Butterbush still reigns for flavor, but Dipper offers smooth semi-dry texture and medium nutty sweetness through long storage. While supplier stats of other varieties in the trial advertised their supposed-PMR status boldly, Little Dipper's just warned of the crazy growth. For disease and worry resistance, we'll take vigor and volume any day. ⑤

1686 ***A**: 1/16oz, $4.60* ***B**: 1/8oz, $8.45* ***C**: 1/4oz, $13.45*
***D**: 1oz, $40.00* ***E**: 4oz, $138.00*

Waltham (105 days) OP. Elegant 9" tan fruits weighing 4–5 lb. Orange dry flesh has a sweet nutty flavor. Excellent keeper. Bred by the Massachusetts Agricultural Extension Service by crossing New Hampshire Butternut (a 1956 Yaeger/Meader development) with a neckless *moschata* from Turkey, and introduced by Bob Young of Waltham, MA. Won 1970 AAS. Continues to be Anne Elder's most dependable winter squash. *Caution: in cool summers fails to ripen in northernmost areas.* Nevertheless, our best-selling winter squash variety.

We are offering three choices this year: conventionally grown, organic and a primo strain for the most fastidious among you:

Waltham The just-fine strain we've carrying for years. Pretty good size and shape and decent yields. ④

1687 ***A**: 1/8oz, $2.50* ***B**: 1/2oz, $4.00* ***C**: 1oz, $6.75*
***D**: 4oz, $14.00* ***E**: 1#, $34.00*

Waltham - Organic The organic choice with medium-sized fruits, some variation in form and good yields. ②

1688 ***A**: 1/8oz, $3.50* ***B**: 1/2oz, $5.50* ***C**: 1oz, $10.00*
***D**: 4oz, $22.00* ***E**: 1#, $75.00*

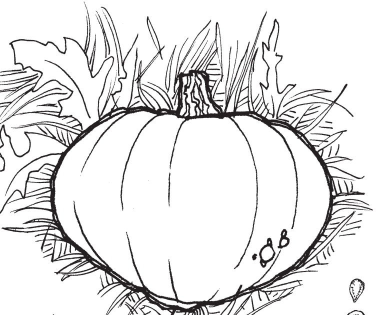
Wig Out Waltham A top-of-the-line strain, good for market growers or the most particular home gardeners. For those who get excited by good form, this is the choice for you. In two years of field trials it has proven to be the best in both yield and consistency, with near-perfect size and shape—no long or crooked necks to be found! ②

1689 ***A**: 1/8oz, $3.75* ***B**: 1/2oz, $5.25* ***C**: 1oz, $9.00*
***D**: 4oz, $21.00* ***E**: 1#, $72.00*

SPECIALTY & HEIRLOOM SQUASH

About 120 seeds/oz.

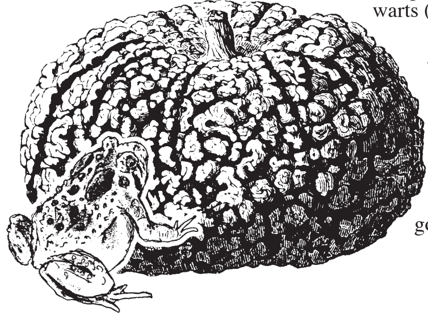
Lower Salmon River - Organic (94 days) *C. maxima* OP. This rare western treasure, an unsung hero among winter squashes, is among the best for eating quality. Once maintained by the old Abundant Life Seed Foundation before their unfortunate fire. In our 2009-10 winter squash taste test it won plaudits from our staff for its thick tasty sweet orange flesh, superb for squash pie. Large salmon-pink pumpkin-like fruits, quite variable in size, averaged 7.5 lb in our trial. ①



1677 ***A**: 1/8oz, $3.75* ***B**: 1/4oz, $6.00*
***C**: 1/2oz, $9.50* ***D**: 1oz, $17.00*
***E**: 4oz, $41.00*

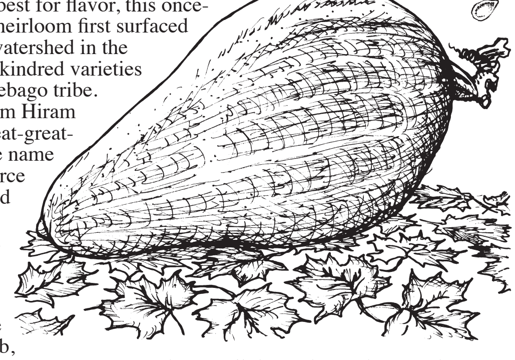
Sweet Meat (95 days) *C. max*. OP. This tasty 12–15 lb slate-grey heirloom, shaped like a slightly flattened round pumpkin was maintained by an Oregon family for 100 years and sold by Gill Bros. of Portland, OR. A best-seller in Oregon, it has long been a western specialty variety that deserves a wider following. Its dry sweet nutty thick orange flesh improves in storage with a flavor similar to **1655** Blue Hubbard. ② *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Galeux d'Eysines - Organic (98 days) *C. max*. OP. Garden writer Barbara Damrosch says "it looks as if peanut-shaped worms were crawling about its surface." Depending on your point of view, it is either among the ugliest or most beautiful of all squashes. We vote for the latter. This heirloom, hailing from the Bordeaux region of France, was listed by Vilmorin in 1883 as Warted Sugar Marrow. It resurfaced at the Pumpkin Fair in Tranzault, France, in 1996. Shaped like rounded slightly flattened pumpkins, the 15 lb fruits have salmon-peach skins covered with large warts (*galeux* translates to 'scum'). Although Galeux is worth growing for beauty alone, its tender moist sweet orange flesh is delightful in soups or baked. Don't scum our yum! Ripens easily from direct seeding even in middling squash years. For your autumn pleasure; not a good keeper. ②



1672 ***A**: 1/16oz, $3.50*
***B**: 1/8oz, $5.75*
***C**: 1/4oz, $9.00*
***D**: 1/2oz, $15.00*

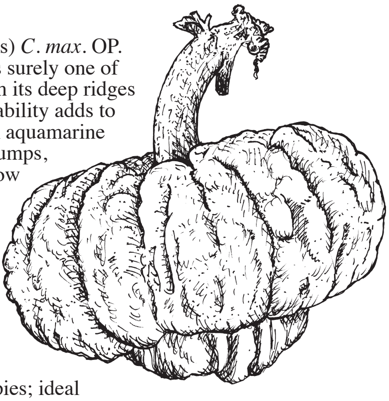
Sibley (100 days) *C. max*. OP. Also known as Pike's Peak. Among the very best for flavor, this once-revered brown-seeded heirloom first surfaced in the Missouri River watershed in the 1830s and is similar to kindred varieties found among the Winnebago tribe. Some of our seed is from Hiram Sibley, whose great-great-great-grandfather of the same name introduced it to commerce in 1887 through his seed company in Rochester, NY. Present-day Hiram has been growing it in Maine, selecting for trueness to type, taste and adaptability. We've stated they weigh 6–8 lb, but Hiram wrote us: "I suppose some are that small, but I throw them to the chickens. I don't save seed from anything less than double digits. Most of mine are 12–16 lb, with a few in the 18–20 lb range if September is warm." Vigorous 12–15' vines produce slate-blue fruit described by Michael Pollan as "pinched in both ends and bulging at the waist." Millbridge, ME, gardener Jake Kennedy says these fetching fruits resemble baby seals hauled out on a ledge. New England seedsman James J.H. Gregory called it "magnificent" and Goldman rates it "the best of the bananas," a group she calls "top tier." Ours was rich, moist, flavorful and sweet, though we sampled it in October, too soon. The quintessential storage squash, not coming into its own until January after its orange flesh has dried and sweetened. Brought on board the Slow Food Ark of Taste. ①②③



1618 ***A**: 1/8oz, $3.65* ***B**: 1/4oz, $5.95* ***C**: 1/2oz, $9.25*
***D**: 1oz, $14.50*

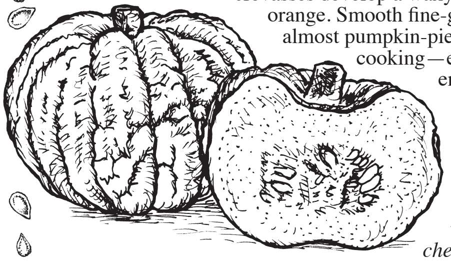
> Thank you all so much for being a wonderful company committed to quality and honesty. I trust your company and appreciate the work you do to provide us growers with 'from the field' trial information.
> – Laurie from Conway, MA

Marina di Chioggia (100 days) *C. max*. OP. The sea pumpkin of Chioggia is surely one of the most beautiful squashes with its deep ridges and bumpy protuberances. Variability adds to their appeal, color ranging from aquamarine to very dark green, most with bumps, some without. Though fruits grow quite large, averaging 15 lb, they have such eye appeal that growers report they are hot sellers. As delectable as they are handsome, even those harvested in a horrific squash year won accolades from our staff for their dense moist texture, rich sweetness and real substance. Delicious baked, in pies; ideal for gnocchi and ravioli. *Caution: rampant vines*. ②

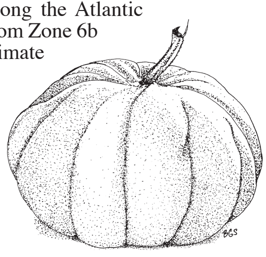


1673 ***A**: 1/8oz, $3.85* ***B**: 1/4oz, $5.60* ***C**: 1/2oz, $8.60*
***D**: 1oz, $12.75* ***E**: 4oz, $32.00*

Black Futsu (105 days) *C. mos* OP. This exquisite Japanese heirloom is gaining popularity in the U.S., showing up at more and more farmers markets, and with good reason! Grey-blue bumpy 2–4 lb fruits with transfixing crevasses develop a waxy bloom before ripening to buff orange. Smooth fine-grained orange flesh has a rich, almost pumpkin-pie flavor. No need to peel before cooking—edible skins are thin and tender enough to be served on the rind. Fruits are best after 1 month of storage and can keep for 3–4 months in a cool dry dark place. Long-vining and prolific plants. ③ **NEW!** *We're not sure when this seed will arrive at our warehouse—check our website for availability.*



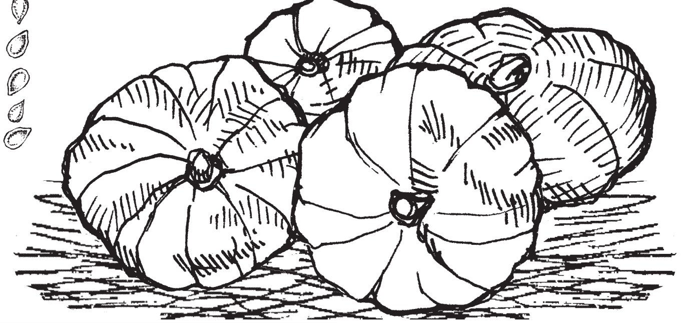
Seminole - Organic (110 days) *C. mos*. OP. Creek-speaking Seminole Indians gave it the name *chassa-howitska*, meaning 'hanging pumpkin.' Rated one of the ten most endangered American foods by RAFT, these buff-colored 7" teardrop-shaped squashes were cultivated by the Seminole in the Everglades region of Florida in the 1500s. The seeds were sowed at the base of girdled trees, so that the irrepressible vines, which grow in excess of 30', climbed the trunks, allowing the fruit to hang from the bare limbs. The deep orange flesh is sweeter than butternut, superb for pies, soup and baked treats, and the key ingredient in delicious Seminole pumpkin bread. Resistant to vine borers. Extremely hard rind must be cracked like a coconut. Stores nearly forever. A great performer in the south and along the Atlantic seaboard, it loves heat and humidity. Kathleen from Zone 6b Tennessee extols Seminole as "perfect for this climate and very disease resistant." Typically requires too long a season to thrive in the North, and Elisa Carbone of Hendricks, WV, advises that any immature fruits taste like extremely sweet zucchini. But Mary Foley, who is enjoying her retirement in Massachusetts, sent in a picture of a Seminole after one year of storage and proclaimed that it "tasted as good as ever." This was from seed she saved herself, but it shows the potential of this squash. **Indigenous Royalties.** ②



1693 ***A**: 1/8oz, $4.95* ***B**: 1/4oz, $8.50* ***C**: 1/2oz, $13.35*

Candy Roaster - Organic (112 days) *C. max*. OP. This large Appalachian heirloom, possibly originating in North Carolina, is peerless as a baked squash, boasting superb eating quality worthy of its name. Luxuriant vines with large leaves mature somewhat warty pinkish-orange enlarged buttercup-shaped fruits of variable size with blue-green markings. Warmth brings out its sweetness and it does not reach full flavor potential in cool summers. Average 2 fruits per plant ranging from 5–25 lb. *Caution: Ripens in northern areas only in good growing years*. Not to be confused with North Georgia Candy Roaster. ②

1676 ***A**: 1/8oz, $4.50* ***B**: 1/4oz, $7.50* ***C**: 1/2oz, $13.00*
***D**: 1oz, $20.00* ***E**: 4oz, $57.00*



PUMPKINS

100–280 seeds/oz, except as noted. 1/8 oz packet sows 3–8 hills.

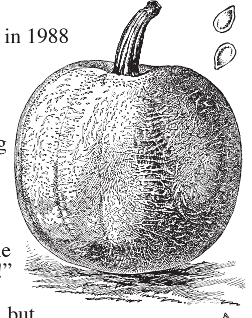
Botanically, there are no such things as pumpkins. But we know one when we see one. “Pumpkins” listed here are three species, *Cucurbita pepo* (mini pumpkins, small pie and some jack-o’-lanterns), *C. moschata* (cheeses) and *C. maxima* (jack-o’-lanterns, decorative and culinary).

CULINARY PUMPKINS

Baby Pam (99 days) *Cucurbita pepo* OP. Agway pie pumpkin has deep orange color and excellent uniformity. Vine-ripens 80–90% of its fruits even in a bad squash year, so it’s popular among Maine commercial growers. Fruits average 3–4 lb, slightly smaller and earlier ripening than New England Pie with the same excellent quality. ②

1711 ***A***: *1/4oz, $3.75* ***B***: *1/2oz, $5.25* ***C***: *1oz, $9.00*
D: *4oz, $19.00* ***E***: *1#, $65.00*

Winter Luxury - Organic (100 days) *C. p.* OP. Back in 1988 when it was maintained only by the Jung Seed Co. in Wisconsin, Mark Fulford recognized that Luxury was “3–4 times as good for pies as New England Pie.” Uniquely russeted finely netted golden-orange skin is beautiful. Joe Hiscott of Quebec enthuses “after making pumpkin pies for more than two decades, I will say with great conviction that the Winter Luxury pumpkin is by far the BEST pie pumpkin. Best pumpkiny taste, best colour, best texture, best consistency. They have a rustic, antique look and even grow into nice manageable sizes, nothing unruly or watery. The ideal pie pumpkin!” Vigorous vines bear globular 7–8 lb fruits with juicy tender slightly sweet pale orange flesh. Productive, too, but somewhat delicate and only fair keepers. ①②



1718 ***A***: *1/8oz, $4.75* ***B***: *1/4oz, $7.50* ***C***: *1/2oz, $12.00*
D: *1oz, $17.00* ***E***: *4oz, $48.00*

New England Pie (102 days) *C. p.* OP. Also known as Small Sugar pumpkin. Probably selected out of Connecticut Field pumpkin by early white settlers, the standard pie pumpkin for generations. A robust yielder in good seasons. One warm year, our two hills produced more than 100 lb; the 25 pumpkins, all vine-ripe, averaged 4.26 lb. During cold summers production is lower and only half will vine-ripen. However, ripening continues during curing.

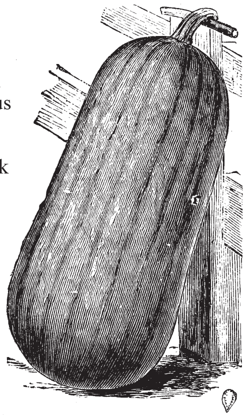
New England Pie ④

1719 ***A***: *1/8oz, $2.95* ***B***: *1/2oz, $4.50* ***C***: *1oz, $6.15*
D: *4oz, $14.00* ***E***: *1#, $31.00*

New England Pie - Organic ③

1720 ***A***: *1/8oz, $3.25* ***B***: *1/2oz, $6.00*
C: *1oz, $7.75* ***D***: *4oz, $16.00*

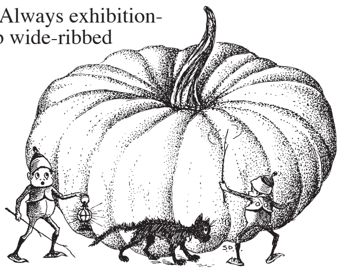
Long Pie - Organic (102 days) *C. p.* OP. Probably a Native American variety, or selected therefrom. Various relatives have included Algonquin, Indian, Golden Oblong, and possibly St. George. The best pumpkin for Yankee pies. 3–5 lb fruits look like overgrown thick zucchinis to the uninitiated, but the telltale sign is an orange spot where the otherwise all-green elongated fruit rested on the ground. After ripening in storage, the whole fruit first blushes, then glows bright orange, signaling that its delicious smooth flesh is ready to be turned into incomparable pies. Your fork won’t know where the whipped cream ends and the pie begins! Though widely grown in Androscoggin county 80 years ago (an old-timer remembers them stacked up on porches like firewood), it almost became extinct. LeRoy Souther, of Livermore Falls, ME, maintained Long Pie for more than 30 years and then brought seeds to cucurbit aficionado (and now JSS plant breeder) John Navazio’s Common Ground Fair booth in the late 1980s. Navazio exhibited one at the 1988 Fair, and then reintroduced it to commerce through Garden City Seeds in Montana. Vines have enormous vigor and can achieve astonishing yields. When William Gray first planted this in the garden, his wife was dismayed that it took up so much garden space. A prolific harvest and many desserts later, she insisted they grow it again. Long Pies stored at 50° can keep all winter. Germinates poorly in cold soil. At the end of the season, small immature fruit make tasty “summer” squash. ①



1723 ***A***: *1/8oz, $3.65* ***B***: *1/4oz, $5.95* ***C***: *1/2oz, $10.50*
D: *1oz, $17.00* ***E***: *4oz, $42.00* ***K***: *1#, $122.00*

Naked Bear, naked seeded (105 days) *C. p.* F-1 hybrid. At first glance, it’s a cute squat 2–4 lb orange mini-pumpkin with a thick stubby handle. Perfect for the toddler u-pick market, you think. But, hello health conscious, what’s this? Upon carving a tiny jack-o-smile, you discover sweet and nutty hulless seeds for roasting! And, if you abandon your jack-o-lantern altogether, extra culinary congrats—you’ve got a perfect one-pie portion of filling as well! Did autumn just get really awesome? You betcha: Productive Petite Pepita Pie Pumpkin. Say that 10 times fast! *We recommend starting naked-seeded types indoors. Direct sowing is dicey.* ②

1725 ***A***: *25 seeds, $5.50* ***B***: *50 seeds, $9.60*
C: *100 seeds, $16.15* ***D***: *200 seeds, $28.00*



Cheese (110 days) *C. moschata* OP. Always exhibition-hall favorites, these handsome 6–12 lb wide-ribbed flattened **tan** fruits, 1' across or more, look like big waxed wheels of cheese. Identified by Hedrick in *Cucurbits of New York* (1937) as “one of the oldest varieties cultivated in America,” a distinctive group that has “remained remarkably stable.” Introduced to commerce in 1807 by McMahon. Some folks call this variety Long Island Cheese because it was once the preferred pumpkin for pies in New York, New Jersey and on the island. Bright orange meat is coarse and quite fibrous, but its sweetness redeems its textural deficiencies and it does not deserve Hedrick’s terse dismissal: “quality poor.” Good for baking, deep cavity lends itself to stuffing. We have found it to be a dependable producer even in our climate and unmatched as a good keeper. ③

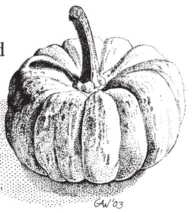
1740 ***A***: *1/8oz, $3.00* ***B***: *1/4oz, $4.75* ***C***: *1/2oz, $8.00*
D: *1oz, $11.00* ***E***: *4oz, $26.00*

Good Egg Godiva, naked seeded - Organic (110 days) *Bad news. No seed available for 2024.*

SMALL ORNAMENTAL PUMPKINS

Wee-B-Little (90 days) *C. p.* OP. This triumph of miniaturization impressed the 1999 AAS judges. Bred to please home and market gardeners and kids everywhere. Unribbed fruits are easier to decorate than Jack Be Little. Small vines (only 6–8') produce 3–4 mini 8–12 oz fruits per plant. Fruits, more upright than Jack Be Little with darker orange rind, look just like tiny pie pumpkins and could serve as such. Sturdy dark green stems provide prickle-free handles. About 350 seeds/oz. ②

1702 ***A***: *1/8oz, $4.00*
B: *1/4oz, $6.50*
C: *1/2oz, $10.00*
D: *1oz, $15.00*
E: *4oz, $44.00*



Jack Be Little (95 days) *C. p.* OP. Tiny ornamental pumpkins weigh only about half a pound. They’re great for decorations and a big hit with kids. Flattened, heavily ribbed fruit with vigorous stems. Good to eat, excellent stuffed. Short vines, about 3–5'. Introduced by Hollar in 1987. About 350 seeds/oz. ②④

1705 ***A***: *1/8oz, $3.25* ***B***: *1/4oz, $4.50* ***C***: *1/2oz, $6.00*
D: *1oz, $10.75* ***E***: *4oz, $24.00*

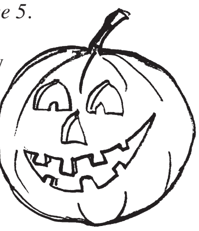
MEDIUM PUMPKINS

Diablo (98 days) *C. p.* F-1 hybrid. If your pumpkin program has been out-Fox’d, maybe it’s time to get a handle on it by going to the devil. Tom Fox, with its massive stocky handles, has defined the recent trend in jack-o’-lanterns, but we think this devil has a more refined look; Diablo’s strong 4 1/2" stems are wide at the base and taper gently upward. We liked its nicely rounded Foxy fruit shape, its deep orange color, its intermediate 12–22 lb size and its medium-deep ribs. Semi-determinate vines. PM tolerant. ⑤

1710 ***A***: *10 seeds, $5.25* ***B***: *20 seeds, $8.85*
C: *50 seeds, $15.25* ***D***: *100 seeds, $28.00*

Lumina (100 days) *Dropping all ⑥ suppliers. See page 5. Try* ***1714*** *Blanco—we think you’ll like it!*

Blanco (100 days) *C. p.* F-1 hybrid. A lustrous ghostly **white** pumpkin that we love for both carving and painting. Stays white in the field longer than other white pumpkins and can store for months, so a face painted on its smooth surface really lasts. Fruits 8" across and average 5–7 lb. Similar to Lumina, but slightly smaller and much more prolific! We haven’t tried eating it yet; let us know if you do. Intermediate resistance to PM. ②



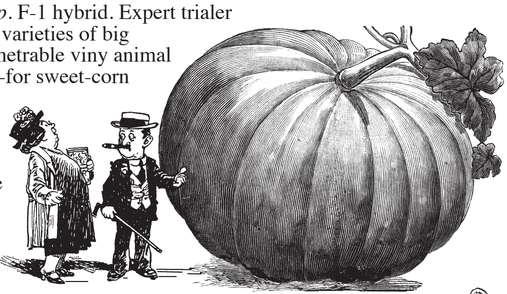
1714 ***A***: *10 seeds, $5.50* ***B***: *50 seeds, $16.50*
C: *100 seeds, $28.50* ***D***: *200 seeds, $48.00*

Rouge Vif d’Étampes (105 days) *C. max.* OP. Also known as Cinderella. This French heirloom turns the pumpkin patch into a glowing blaze with its decorative deeply ridged burnt-orange to red 7–30 lb flattened fruits. Amy Goldman says it “coasts on its looks alone…insipid and watery.” “Not so,” dissents Donna Fraser-Leary of Charlotte, VT. “You do this…versatile pumpkin an injustice…While their flavor is somewhat milder than a winter squash and the texture somewhat fibrous… I use it in all my favorite recipes that call for squash or pumpkin.” Rosalind Creasy says chefs in France use it as a base in their vegetable stock and bake garlic, onions and leeks in the pumpkin to scoop right from the shell into a Swiss cheese leek soup. While folks may disagree about its eating quality, no one can gainsay its spectacular beauty. Because of its thin skin, not a great keeper. Originated in France in the early 1800s, named for a town south of Paris. Introduced to the U.S. by Burpee in 1883. ②

1727 ***A***: *1/8oz, $3.25* ***B***: *1/4oz, $5.25* ***C***: *1/2oz, $8.75*
D: *1oz, $13.00* ***E***: *4oz, $33.00*

Tom Fox (110 days) *Dropped. Try* ***1717*** *Justify.*

LARGE PUMPKINS



Bellatrix (100 days) *C. p.* F-1 hybrid. Expert trialer Donna Dyrek uses many varieties of big pumpkins to create impenetrable viny animal control around her to-die-for sweet-corn patch. She trialed this seed before it was introduced; the breeder labeled it "squash" and a number. At the end of the season, Donna beckoned Heron to the plot: "Did you see how beautiful this is?" They have both grown this pumpkin ever since. Now named Bellatrix by the breeder, the sturdy ribbed round shoulders of these deep crayon-orange uniform globes contrast nicely with dark thick stems. Reliably ranging between 15–25 lb, Bellatrix has been productive in central Maine through dry years and wet ones. The ideal Jack size and shape, it's got a broad face for you to carve a wicked smile! Intermediate resistance to PM. ④

1746 ***A****: 25 seeds, $6.15* ***B****: 100 seeds, $20.50*
C*: 500 seeds, $74.00* ***D****: 1000 seeds, $140.00*

Justify (100 days) *C. p.* F-1 hybrid. A safe bet in the Triple Crown–pumpkin patch. Medium-large vigorous vines bear many burnt-orange 20–25 lb pumpkins with pronounced ribbing and well-attached thick sturdy stems. Similar to **1747** Secretariat but larger and more upright, like the kind my brother would have chosen for carving elongated scary faces when we were kids. I always opted for the rounder squat types, a better canvas for friendly ghost faces. Although similar to Secretariat, we can Justify carrying both to satisfy all kids' jack-o-lantern dreams. Intermediate resistance to PM. ②

1717 ***A****: 10 seeds, $5.50* ***B****: 50 seeds, $16.50*
C*: 100 seeds, $29.00* ***D****: 200 seeds, $48.00*

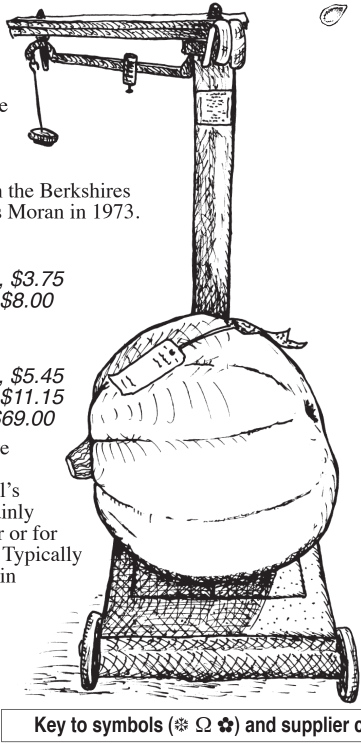
Secretariat (105 days) *C. p.* F-1 hybrid. At 105 days this one won't win the speed records of its Triple Crown–winning namesake, but it will finish under the wire here in central Maine. Very deep orange, slightly flattened 9x12" ribbed pumpkin weighs in at a solid 15 lb and sports a gorgeous thick solid handle that will impress at the farmstand. Plant with **1717** Justify so your patch offers a variety of pumpkin shapes. Medium-large vines bear multiple fruits per plant. Intermediate resistance to PM. ②

1747 ***A****: 10 seeds, $5.00* ***B****: 20 seeds, $8.00*
C*: 50 seeds, $14.50* ***D****: 100 seeds, $26.00*

Connecticut Field (115 days) *C. p.* OP. Also known as Big Tom. Grown for jack-o'-lanterns and stock feed, gets 15–25 lb, sometimes more. Not uniform in size or shape; perfect for those who eschew conformity. Heirloom grown by Native Americans, adopted by colonists before 1700, and a staple of 19th-century catalogs. Vick's offered for 10¢ an oz and 50¢ per lb in 1877. Ripens for us in good years, but often we must pick green. **Indigenous Royalties** ④

1748 ***A****: 1/4oz, $3.50* ***B****: 1/2oz, $5.25* ***C****: 1oz, $6.50*
D*: 4oz, $13.00* ***E****: 1#, $35.00*

Howden (115 days) *C. p.* OP. For nearly 50 years Howden's symmetrical fruits with hard ridged skin and thick flesh have set the standard for large round jack-o'-lanterns both for fresh market and shipping, so much so that they are now a New England tradition. Large spreading vines produce 4–6 deep orange fruits per plant, typically much more uniform than Connecticut Field while weighing 20–35 lb, often able to ripen fully in our climate. Organic seed crop is grown in North Dakota, so better adapted to the cold. Developed by John Howden in the Berkshires of Massachusetts and introduced by Harris Moran in 1973. Tolerant to BR.



Howden ②

1751 ***A****: 1/8oz, $2.75* ***B****: 1/4oz, $3.75*
C*: 1/2oz, $5.00* ***D****: 1oz, $8.00*
E*: 4oz, $16.00*

Howden - Organic ①

1752 ***A****: 1/8oz, $3.30* ***B****: 1/4oz, $5.45*
C*: 1/2oz, $7.75* ***D****: 1oz, $11.15*
E*: 4oz, $27.00* ***K****: 1#, $69.00*

Big Max (120 days) *C. max.* OP. These are big pumpkins. Not big enough to compete in giant-pumpkin contests (you'd need Dill's Atlantic Giant, not offered by us) but certainly sufficient for exhibiting in your county fair or for displaying as an awesome jack-o'-lantern. Typically weighs 50–100 lb and measures up to 70" in circumference! ④

1757 ***A****: 1/4oz, $3.15*
B*: 1/2oz, $4.50*
C*: 1oz, $7.00*
D*: 4oz, $14.50*
E*: 1#, $38.00*

TOMATILLO & HUSK CHERRY

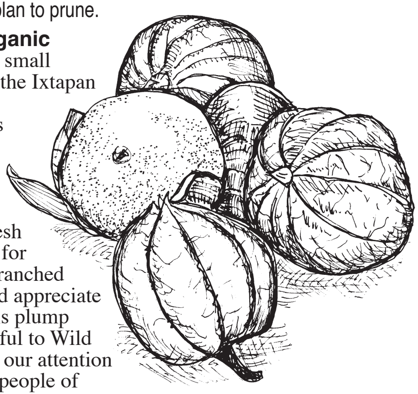
Physalis spp.

Days to maturity are from date of transplanting.

TOMATILLO *Physalis ixocarpa*

About 500 seeds/g.

Culture: Ideal germination temperature 75–85˚. Start indoors 2 weeks after tomatoes lest they get leggy. If seedlings do get leggy, transplant them deep so the stems can root. Some like them pruned, others let them sprawl. Space plants 3' apart for the sprawlers, closer if you plan to prune.



Queen of Malinalco - Organic (60 days) OP. Hails from the small Aztec town of Malinalco, in the Ixtapan region of Mexico. Peculiar 3"-long oblong pointed fruits ripen from green to lemon yellow with a flavor that surprises and delights! Sweet and tropical, like a ground cherry, perfect for fresh eating, roasting, grilling and for fruity salsas. Robust multi-branched bushes easily reach 3' tall and appreciate support. Harvest when fruit is plump and husk splits. We are grateful to Wild Mountain Seeds for drawing our attention to this tomatillo, and for the people of Malinalco for tending it. ① **NEW!**

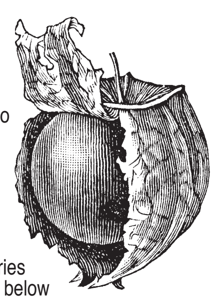
4010 ***A****: 0.2g, $2.95* ***B****: 0.4g, $3.95* ***C****: 1g, $5.75*
D*: 2g, $9.00* ***E****: 10g, $30.00*

Purple Blush - Organic (68 days) OP. Mislabeled as 'Purple Lush' in our trials, a moniker that stuck the more we observed its lush production of large 2"+ fruits on sprawling 5' plants. Everyone who tasted them used words like "sweet," "fruity," "yummy," which explains why we switched from Verde Puebla. Roast them with pumpkin seeds and hot pepper, then grind together with spices for a delicious and nutritionally dense repast. The fruits blush purple only where they are kissed by the sun. ①

4012 ***A****: 0.2g, $2.95* ***B****: 0.4g, $3.95* ***C****: 1g, $5.75*
D*: 2g, $9.00* ***E****: 10g, $30.00*

HUSK or GROUND CHERRY *P. pruinosa*

About 900–1400 seeds/g.



A treat inside every paper wrapper! Same genus as tomatillo and Chinese Lantern, fruits ripen inside their protective husks. As clusters of berries sweeten, they turn from green to golden yellow, drop off the decorative branching plants, and reach perfection as their husks thin to a near-gossamer papery texture. The sweet berries have an indescribable flavor, great for raw snacks. Don't eat them unripe—they can be a powerful emetic.

Culture: Need filtered light and temperatures at least 75˚, preferably closer to 90˚, to germinate. Cover seeds with a light sprinkling of soil and place the flats in the hottest part of the greenhouse, transplanting after last frost. Husk cherries tolerate a touch of frost but give up when temperatures dip below 30˚. In a good year, about half will ripen in time. Will readily self sow, although volunteers may not mature as quickly as those started indoors.

Pests: To protect plants against potato beetles, use floating row cover (page 142). Adults overwinter and lay eggs on solanaceous crops, especially tomatillos and husk cherries. If beetles get in, hand-picking adults and squishing eggs helps in small plots.

Aunt Molly's - Organic (72 days) OP. Though native to Central America, this heirloom was widely grown in Poland and is now on board the Slow Food Ark of Taste. Won over Fedco staffers who had previously been indifferent to husk cherries. "Sweet and zesty." Some compare the flavor of these 1/2–3/4" fruits to pineapple, some to tangerines. ②

4005 ***A****: 0.2g, $3.00* ***B****: 0.4g, $4.00* ***C****: 1g, $5.50*
D*: 2g, $7.25* ***E****: 10g, $25.00*

CAPE GOOSEBERRY *P. peruviana*

Similar to husk cherry, but larger, more upright plant with larger husks and fruits. Also called Peruvian groundcherry.

Culture: Start seeds in early spring around the same time as tomatoes, transplanting out after all danger of frost has passed.

Ambrosia - ECO (115 days) OP. The grower calls this his heart-plant and we can see why, if only because we fell instantly in love from first bite, with taste notes ranging from an exuberant YES! to full-on rhapsodizing about the extraordinary flavor (hints of coconut milk and pineapple, bright and citrusy). A vigorous annual in the Northeast bearing yellow cherry-tomato–sized fruits on bushes 3–4' tall and wide. A tender perennial in warmer climes, more tropical in nature than some others but selected for 5 years in our more temperate zone. Begin picking fruit in the fall as the husks around the fruit dry completely. The fruit lasts unrefrigerated for weeks in the husk. Great for jams, salsas and fresh eating. ①

4009 ***A****: 0.2g, $2.95* ***B****: 0.4g, $4.95*

TOMATO

Lycopersicon esculentum

- Days to maturity are from date of transplanting.

Culture: Usually started indoors Feb–April. **Minimum germination soil temperature 60°, optimal range 75–90°.** Transplant after frost danger has passed. Avoid using fresh manure as it causes lush foliage with few ripe fruits. Instead use generous amounts of compost or well-rotted cow or horse manure to boost plant vigor, and crushed eggshells or gypsum (page 133) at the bottom of each hole for calcium. Heavy phosphorus needs. Responds well to foliar sprays.

- **Determinate** (Det.) bush varieties may be staked, should not be pruned.
- **Indeterminate** (Ind.) climbing varieties are often staked and pruned. Tomato experts Carolyn Male and Kokopelli's Dominique Guillet both oppose pruning, arguing more abundant foliage provides more photosynthesis.

Organically and sustainably grown seed was rinsed with a sodium hypochlorite solution to reduce risk of seed-borne disease. This treatment poses no health risks.

Diseases:

ASC	Alternaria Stem Canker	N	Nematodes
EB	Early Blight	SEPT	Septoria Leaf Spot
F	Fusarium	TSWV	Tomato Spotted Wilt Virus
GLS	Grey Leaf Spot	TMV	Tobacco Mosaic Virus
LB	Late Blight	V	Verticillium

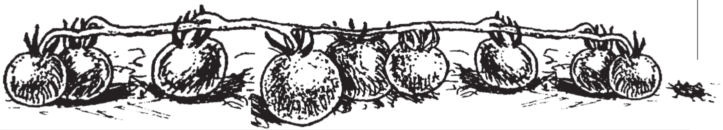
MIX IT UP

Heirloom Tomato Blend - Organic We'll mix a bunch of varieties (all organically grown seed) in one packet. You'll get different colors, sizes, shapes and flavors (no cherries). With an open mind, a good sense of observation, unjaded taste buds and acute deductive faculties, you can figure out which ones you like and order them by name next year. About 500 seeds/g.

4149 ***A**: 0.2g, $2.95*
***B**: 0.4g, $4.25*
***C**: 1g, $6.75*
***D**: 2g, $9.00*
***E**: 10g, $27.00*

Cherry Tomato Blend We'll mix a bunch of varieties in one packet. You'll get different colors, sizes, shapes and flavors, all small-fruited tomatoes. If you're game to solve a puzzle, you can look up the varieties in your blend by lot number online, then try match your tomatoes to our catalog descriptions. All indeterminate. About 400 seeds/g. **NEW!**

4150 ***A**: 20 seeds, $5.15* ***B**: 40 seeds, $9.95*
***C**: 100 seeds, $18.50*



Pests and Disease Remedies for Tomatoes

Early Blight shows up as drying and dying leaves at the bottom of the plant. EB can be managed culturally, should not result in significant crop loss. Mulching deters EB by reducing rain splash on foliage. Do not compost affected plants as EB can overwinter even on dead tissue.
- Cultural controls: Rotation; avoid stressing plants; staking; minimize leaf wetness; mulching; indeterminate varieties are more resistant/tolerant; disinfect stakes & cages.
- Material controls: **8693** Regalia, **8710** Cease, all page 145.

Late blight usually starts on the foliage of the plant. Early in the season, late blight infection shows as roundish lesions on leaves that uniquely will cross the center vein of the leaf. Later, blotches appear on stems. Still later, hard crusty lesions form on fruits.

LB on tomatoes is not seed-borne and does not survive on dead tissue. Letting plants freeze on the soil surface kills LB spores.
- Cultural controls: Destroy cull potatoes & potato volunteers, avoid overhead irrigation.
- Material controls: **8693** Regalia, **8672** Copper, **8710** Cease, all p. 145.

Septoria Leaf Spot can appear almost overnight. It is characterized by yellowing and small circular spots on older leaves. It can eventually spread to the entire plant in conditions of high humidity and temperatures. It can be spread by wind or carried on clothing and tools. Septoria can live over the winter on live tissue, so don't compost affected plants.
- Cultural controls: Space plants for good air circulation.
- Material controls: **8666** MilStop, **8672** Copper; **8693** Regalia, all p. 145.

Anthracnose
- Cultural controls: Rotation; mulching; minimize plant wetness; staking; use compost.
- Material controls: **8666** MilStop, **8672** Copper, **8693** Regalia, **8710** Cease, all p. 145.

Tomato Hornworm
- Cultural control: Look for frass (droppings) and handpick. Eeeuww! Use a blacklight to find them. See if you can get the chickens to eat them.
- Material controls: **8753-6** Bt kurstaki, **8762** Spinosad, p. 147.

Tarnished Plant Bug
- Cultural controls: Floating row covers p. 142, good weed control.
- Material controls: **8765-8** Pyrethrin, p. 147.

Open-pollinated RED & PINK SLICERS

250–650 seeds/g.

Glacier - Organic (56 days) Det. with potato-leaf foliage. Glacier ripens red around the same time as the sub-arctics with about the same size (1–2"), and almost no cosmetic defects except yellow shoulders, but there the comparisons end. Glacier's rich tomato flavor relegates the insipid sub-arctics to the compost pile. It is also superior to the highly touted Siberia tomato, to Stupice, to Early Temptation, to Bloody Butcher, in fact, to every other tomato in the same class that we've tried. Originally from Sweden, 1985. ① *We're not sure when this seed crop will arrive. Check our website for availability.*

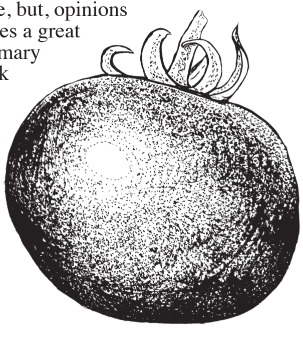
Oregon Spring - Organic (58 days) Det. Recommended as a "hedge" in northern climates for cold summers. Bred to be set out in cool spring temps. When most other varieties fail to ripen in time, Oregon Spring matures good-sized fruit in August, actually performing best during cool summers. Develops more cosmetic defects in the heat and humidity. Bears succulent almost seedless red fruits, up to 4" but somewhat variable. Tastes unusually good for such an early variety. Bred and developed from Russian parents by Dr. Jim Baggett of OSU and released in 1984. Not suitable for market growers. Parthenocarpic. Resistant to V. ①

4025 ***A**: 0.2g, $3.25* ***B**: 0.4g, $4.25* ***C**: 1g, $6.75*
***D**: 2g, $9.95* ***E**: 10g, $27.00*

Cosmonaut Volkov - Organic (65 days) Ind. "Sturdy, productive, cool-weather tolerant and great flavor," lauds Anne Elder. A superb home-garden variety with good commercial potential both outdoors and in tunnels, Cosmonaut always tastes good, occasionally sublime. Produced the best two tomatoes Nikos has ever eaten, from different gardens in different years. Usually ripens quantities of deep red slightly flattened 8–12 oz globes at the beginning of August when tomato craving is at its peak. What makes Cosmonaut so special is its juice: sweet, rich and full-bodied. Even in cold summers, it will produce dependably by mid-August. Catalog editor Elisabeth noted her Cosmonauts ripened nice fruits outdoors into early October one year, weeks after her other slicers had croaked. Volkov was the Russian explorer who perished in space. From Dnepropetrovsk in Ukraine, brought to America by the Seed Savers Exchange. ①②

4038 ***A**: 20 seeds, $1.95* ***B**: 40 seeds, $2.95*
***C**: 100 seeds, $4.25* ***D**: 500 seeds, $9.95*
***E**: 5000 seeds, $40.00*

Pruden's Purple - Organic (72 days) Ind. We continue to dispute whether Pruden's is superior to Brandywine, but, opinions aside, Pruden's is early for its size and makes a great sandwich tomato. We are back to our customary potato-leaved strain that bears irregular pink 1 lb fruit with very few seeds, a silken texture and rich tomato taste, nicely tart with a balanced undertone of sweetness neither insipid nor cloying. Brett Grohsgal praises its flavor, productivity and disease resistance. We don't know why it's called purple when it is clearly pink. ①



4049 ***A**: 0.2g, $3.30*
***B**: 0.4g, $4.50*
***C**: 1g, $6.75*
***D**: 2g, $10.00*
***E**: 10g, $24.75*

Preventing Late Blight

Dry conditions spare us some years, but late blight is here to stay, especially for field-grown crops. Cool temperatures, moist conditions, still air and lack of sunshine favor sporulation; spores can occur and advance in any condition of high humidity. LB might spread quickly…or not; wind-borne spores can travel hundreds of miles on storm fronts, but also can be baked into submission by the hot sun. Once LB lesions develop on your plants take immediate action to halt the disease in hopes of salvaging a crop. Our recommendations:

- Where possible, use resistant varieties.
- Try to find tolerant cultivars—use anecdotal evidence and experiment.
- Grow your own tomato plants or buy locally grown seedlings. Avoid big-box seedlings. Know your farmer!
- Do not use saved potatoes as seed stock. Purchase only new certified disease-free seed potatoes. More potato info on page 123.
- Plant in areas with full sun and few wind blocks. Avoid shade and moist environments. Facilitate air movement. Maintain high soil fertility.
- If you choose to spray, have a plan and materials on hand, so you can make quick and timely application(s) when conditions indicate. More about control materials at left, and beginning on page 145 in our Organic Growers Supply section where we offer a full roster of products.
- Most market growers and many home gardeners now grow at least a portion of their tomatoes in high tunnels, which greatly reduces vulnerability though still requires vigilance.

INFORMATION SOURCES:

See vegetablemdonline.ppath.cornell.edu/ for excellent photos and info.

University of Maine Cooperative Exension: Potato IPM bi-weekly tells where LB infections have been confirmed in Maine or the eastern United States. umaine.edu/potatoes, 1-888-USE-UMCE.

Or use the forecast model uspest.org/risk/tom_pot_map to assess potential for spore germination and lesion formation in your area.

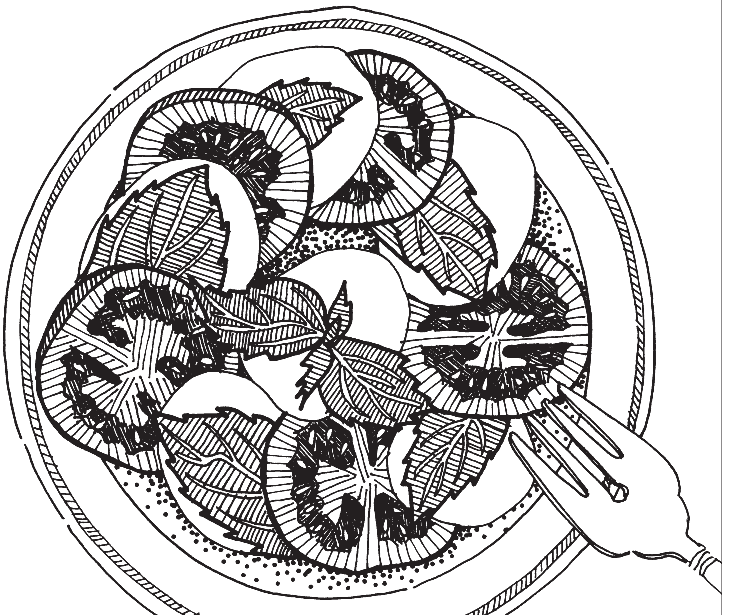
We ship seeds to Canada!

Bizhiki - Organic (75 days) Ind. In this fast-paced world of rapid changes, who remembers Buffalo greenhouse tomato? We lamented its demise when breeder Enza Zaden dropped it. We also missed poking fun at a city whose weather we judged to be worse than ours. We went on a search for a greenhouse tomato with the same fantastic flavor—that would do well in the Northeast. Ontario biodynamic farmer Cory Eichman, who has the same long memory, set to work selecting year after year from the original hybrid Buffalo for great taste combined with crack resistance. When he had met those criteria with a uniform bright red 3" globe-shaped open-pollinated tomato that holds its own with modern hybrids in the greenhouse, he renamed it Bizhiki, the Anishinaabe word for buffalo. ①

4050 **A**: 0.2g, $3.25 **B**: 0.4g, $4.50 **C**: 1g, $7.75
D: 2g, $11.00 **E**: 10g, $26.00

KC 146 - Organic (75 days) Semi-Det. AKA Campbell's 146. When our seed buddy Nate Kleinman at the Experimental Farm Network touted this variety, we couldn't quite believe he was extolling a processing tomato—from Campbell's no less. But we value his opinion and grew it out to taste for ourselves. The results are in and now you can judge for yourself whether it has substantial fresh tomato flavor. Released in 1956 by Campbell's tomato breeder George B. Reynard, KC 146 became the flavor standard for their soup. It performed well for the times, being both wilt- and crack-resistant, but was eventually replaced by newer varieties with better disease resistance. The productive 5' plants produce a plethora of 9 oz red round fruit with good rich tomatoey flavor. Good for canning, evoking childhood comfort food. Mmm'mmm good! ①

4052 **A**: 0.2g, $3.25 **B**: 0.4g, $4.50 **C**: 1g, $7.75
D: 2g, $9.95 **E**: 10g, $25.50



Rutgers Schermerhorn - Organic (70 days) Ind. An outstanding slicing, cooking and canning tomato with medium-sized 4–6 oz mostly uniform and unblemished deep oblate fruits. Rich red interior and pleasing texture complement that great old-time flavor. Delicious and juicy. A bit earlier and more disease resistant than the Rutgers' strain we used to carry. Not the original Rutgers, which was lost, but a rebreeding of the famous New Jersey tomato. Resistant to F1, V1, ASC, GLS. ①

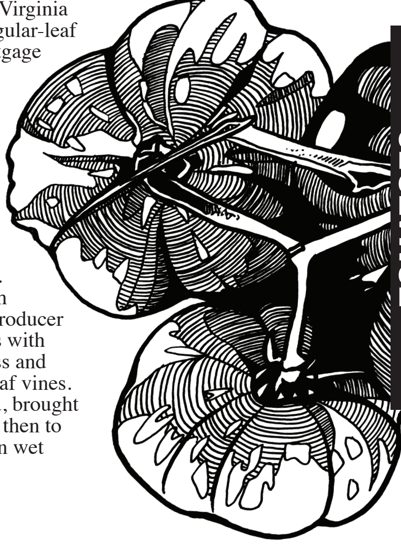
4056 **A**: 0.2g, $3.35 **B**: 0.4g, $4.95 **C**: 1g, $6.50
D: 2g, $11.00 **E**: 10g, $26.00

Rose de Berne - Organic (80 days) Ind. This Swiss émigré could be considered the Brandywine of continental Europe. Like Brandywine, it has many strains, and is widely considered in France, Germany and Switzerland to be the best-flavored tomato. Only medium-sized, yet delivers the robust flavor of the bigger types. It bested some formidable competition in our trials with a rich sweetness the others couldn't match and still can't. A recent taste test confirmed it's the best pink for its size. No slouch in the appearance department either, the unblemished globes are perfectly round, the soft skins not excessively fragile and the color and size very attractive, making it another excellent field-to-market variety that does not require high tunnels. Competes favorably with the hybrids. David Nonnenmacher reports from Hawley, PA, that Rose was "the only heirloom to resist the onslaught of tomato diseases in the cold of August 2017 and then ripen beautifully in the warmth of September." Some LB tolerance. ①

4067 **A**: 0.2g, $3.65 **B**: 0.4g, $4.95 **C**: 1g, $6.75
D: 2g, $10.00 **E**: 10g, $28.50

German Johnson - Organic (80 days) Ind. An old heirloom probably from Virginia or North Carolina. This large regular-leaf plant, one of the parents of Mortgage Lifter, is known for its copious yields of pink meaty fruits often exceeding 1 lb, mild with more than a touch of sweetness. ①②

4069 **A**: 0.2g, $3.50
B: 0.4g, $4.50
C: 1g, $6.25
D: 2g, $8.50
E: 10g, $24.00



Soldacki - ECO (80 days) Ind. You won't find a better sandwich tomato than Soldacki, a heavy producer of meaty tasty 14 oz pink globes with a good mix of sweetness, tartness and real tomato flavor. Tall potato-leaf vines. Originally from Krakow, Poland, brought to Cleveland, OH, around 1900, then to Albany, NY. Prone to cracking in wet seasons. ① **BACK!**

4070 **A**: 0.2g, $2.50
B: 0.4g, $4.00
C: 1g, $6.00
D: 2g, $8.00

Pink Brandywine - Organic (82 days) Ind. Potato-leaf foliage. Pink Brandywine is the heirloom that launched a movement, leading many gardeners to be flavor-positive preservation-aware seed-savers. But as Brandywine's popularity exploded, so did its production as commercial bulk seed. Like all heirlooms, our favorite old-fashioned OPs with their hand-selected hand-me-down genetics need special care. We've partnered with Daniel and Corinne at Blackbird Rise of Palermo, ME, to keep building the Brandywine legacy. Through multiple summers they've raised hundreds of plants from our classic Sudduth/Quisenberry strain and selected for that perfect Brandywine color, flavor, bountiful size and shape that says "homegrown comfort." The result is this extra-select strain of 1 lb oblate pink meaty beefsteaks that trends away from small-fruited, less-vigorous and late-ripening traits. Of course, that precious balanced deep flavor with perfect hints of tart still rings true! Ripens unevenly through the season. ①②

4075 **A**: 20 seeds, $2.15 **B**: 40 seeds, $2.95
C: 100 seeds, $3.95 **D**: 500 seeds, $7.95
E: 5000 seeds, $45.00

Mark Twain - ECO (85 days) Ind. Odd that a tomato would be named for the famous writer who professed not to like them. He did write a 1906 story about an unsuccessful 10-hour wild turkey chase in his youth that left him famished and lost in the woods. He rescued himself by finding a garden full of ripe tomatoes. We don't know the history of this obscure heirloom that might be as old as his story. The tomato is rare, but worth preserving on the strength of its deep red interior color and full-bodied flavor. These tomatoes are good-sized and crack free, though soft so they won't take a lot of handling. Twain puts out a lot of ribbed 8–24 oz oblate fruits in September. Though we know of no other commercial sources and of only one seed saver (in Wisconsin) maintaining it, it is one of the best-tasting heirloom beefsteak tomatoes. ①

4081 **A**: 0.2g, $2.95 **B**: 0.4g, $4.25 **C**: 1g, $6.75
D: 2g, $10.00 **E**: 10g, $29.00

Weisnicht's Ukrainian - Organic (85 days) Compact Ind. with potato-leaf foliage. Thanks to Ryan Voiland of Red Fire Farm in Granby, MA, for helping put this little known but extremely tasty heirloom on the map. In 2015 at the annual MA commonwealth tomato contest in Boston, Voiland won first prize in the heirloom category for his entry of Weisnicht's. A panel of food writers, chefs, produce experts and state officials judged the tomatoes on flavor, firmness/slicing quality, exterior color and shape. The oft-bi-lobed medium-large 8–18 oz scrumptious pink fruits are sparse seed bearers. The flavor—sweet, rich and complex with delicious acid overtones—received an unusually high 4–4.5 out of 5 in our taste evaluations. They begin producing in late August or early September with a 3–4 week moderately productive main harvest period. One cold wet summer, it ranked #1 among the 43 varieties in our trials. We got our original seeds from Scott Weisnicht of Waupun, WI. Weisnicht also supplied us with our first seeds for the much-revered rare Pride of Wisconsin melon. ① **BACK!**

4082 **A**: 20 seeds, $2.30 **B**: 40 seeds, $3.00
C: 100 seeds, $4.25 **D**: 500 seeds, $10.75
E: 5000 seeds, $45.00

Tiffen Mennonite - Organic (86 days) Ind. This heirloom from Mennonites in Wisconsin was first introduced to the Seed Savers Exchange by Thane H. Earle of Whitewater, WI. Tiffen has many similarities to the more famous Brandywine—potato-leaf foliage, pink skin, and rich old-fashioned tomato taste that has twice drawn raves at staff tastings. The large rough oblate beefsteak fruits (avg 13 oz) are a tad bigger and later than Brandywine. For a superb sandwich tomato or a fresh garden snack Tiffen is hard to top. ③

4087 **A**: 0.2g, $2.75 **B**: 0.4g, $3.95 **C**: 1g, $5.25
D: 2g, $7.75 **E**: 10g, $21.50

Open-pollinated SLICERS OF OTHER COLORS

250–650 seeds/g.

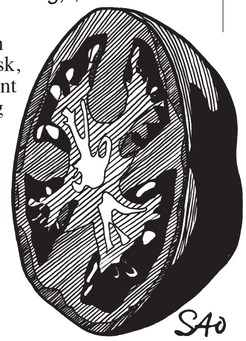
Pink Berkeley Tie-Dye - Organic (68 days) Compact Ind. Here is a tomato variety with a name and appearance we ex-hippies can love. Tie-Dye is not only the best of all the "Boar Series" released by talented breeder Bradley Gates of Wild Boar Farms in Napa, CA, but it is also by far the best of all the new tomatoes we've tried. Tie-Dye has real flavor. Not only flavor but also amazing early productivity, size, disease tolerance, and is it ever a looker. In a jungle among some 15–20 other varieties, this beefsteak accounted for at least half of our early ripe full-sized tomatoes for two years in a row. Fruits usually bi-lobed, averaging about 9 oz, the color of **port wine with metallic green stripes**. They have an engaging tanginess, almost as if lightly salted. The spiciness is just what you might expect from this striped beauty. Seems to hold up well in the field and after picking. A winner both for the marketer and the home gardener. ②

4041 *A: 0.2g, $4.45* *B: 0.4g, $7.50* *C: 1g, $15.75*
D: 2g, $26.25 *E: 10g, $82.00*

Garden Peach (71 days) *Not available in 2024*.

Mountain Spirit - Organic (77 days) Ind. The talented breeders at Wild Mountain Seeds created this new exciting medium-to-large 10–15 oz **yellow-red bicolor** by combining many popular tomatoes then selecting for production, vigor and fruit quality. Resistant to cracking and disease, but not resistant to flavor: they wowed our staff in trial taste tests with their lower acidity and gentle fruitiness. Extreme yields and great overall performance in both Carbondale, CO, at 6400' and in Midcoast Maine at sea level. Customer Jan M. in northern Montana reports, "I was absolutely thrilled with the Mountain Spirit tomatoes I grew this summer. They were GIGANTIC, delicious and ripened sooner than most of my cherry tomatoes. Everyone should know how fabulous they are!" **Breeder Royalties.** ①

4048 *A: 0.2g, $3.25* *B: 0.4g, $4.50* *C: 1g, $6.95*
D: 2g, $11.00 *E: 10g, $26.00*



Black Prince - Organic (75 days) Ind. In 1997 when we were among the first to offer this émigré from Irkutsk, Siberia, we were way ahead of our time. These iridescent 5–7 oz **garnet-colored** slightly oblong fruits are among the most uniformly handsome in the tomato kingdom. The perfect single-serving slicer. This prince has earned a reputation for outstanding flavor similar to that of Black Krim, but without Krim's fragility and tendency to crack. A superior home-garden tomato that is also a reliable heavy-yielding field-to-market choice for growers without high tunnels. ①

4053 *A: 0.2g, $3.30* *B: 0.4g, $4.75*
C: 1g, $6.95 *D: 2g, $10.25*
E: 10g, $27.50

Goldie (75 days) Ind. Considered synonymous with Dixie Golden Giant. **Deep orange** beefsteak fruits, frequently bi-lobed, average 16–20 oz. Though reputed to be more than 150 years old, Goldie was introduced commercially in 1977 by Gleckler's Seedsmen. We rate it as the best of all orange tomatoes, delivering its rich flavor with an extraordinary velvety texture. Often Roberta's first large tomato to ripen. Erica Myers-Russo from CT advises, "Don't harvest it until it has a distinct rosy blush" (on the bottom). Very productive. Will catface under cold or excessively wet conditions. Several people who grew our Heirloom Mix said Goldie was their favorite.

Goldie - Organic ①

4054 *A: 20 seeds, $1.95* *B: 40 seeds, $2.95*
C: 100 seeds, $5.95

Goldie - ECO ①

4055 *A: 20 seeds, $1.85* *B: 40 seeds, $2.65*
C: 100 seeds, $5.75

Green Zebra - Organic (77 days) Ind. A most unusual beast in the tomato menagerie, this zebra starts out **green with darker green stripes**, softening and **blushing yellow and apricot** when it ripens. It might have remained a mere curiosity but for its delicious sweet rich flavor. Small-medium 4–5 oz fruits are emerald green inside. Perfect exteriors hold up under adverse conditions and don't crack. "The perfect salad tomato," says Anne Elder. Sometimes incorrectly shows up on lists of heirloom tomatoes, but was developed by Tom Wagner of Tater Mater Seeds in 1985 from four heirlooms. Kent Whealy ranks it in his top ten tomatoes. Susceptible to SEPT. ①②

4057 *A: 20 seeds, $2.35* *B: 40 seeds, $3.00*
C: 100 seeds, $4.00 *D: 500 seeds, $8.00*
E: 5000 seeds, $34.00

Green Cherokee - Organic (75 days) Ind. Tomato expert Craig LeHoullier noticed and selected this sport of Cherokee Chocolate around 1997. A generation later, many consider Cherokee Green to be the best-tasting green tomato. Not an heirloom, but tastes like one. And for our staff taste buds, it has it all: assertive taste with just the right acidic balance and a complexity that pops it above the average in the almost fourscore tomato varieties we trialed. The 8–12 oz beefsteak fruit ripen green with an amber tinge at the blossom end when fully ripe. Productive and with a bit of disease tolerance. ① **Indigenous Royalties. Breeder Royalties. OSSI. BACK!**

open source seed initiative

4058 *A: 0.2g, $2.95* *B: 0.4g, $3.95* *C: 1g, $6.50*
D: 2g, $9.00 *E: 10g, $24.00*

Cherokee Purple - Organic (77 days) Ind. but with relatively short vines. No list of the best-tasting heirloom tomatoes would be complete without Cherokee Purple, an unusual variety from Tennessee said to have originated with the Cherokee people. Fruits are globes to slightly oblate, averaging 10–13 oz, with **dusky brownish-purple skin, dark green shoulders** and brick-red flesh. The real attraction is their rich taste, described as "sweet rich juicy winey," "delicious sweet," and "rich Brandywine flavor" by aficionados maintaining it in the Seed Savers Exchange. Tied with Amish Paste for our top-selling tomato. Expect some concentric cracking. In an unprecedentedly short growing season, Cherokee Purple frosted to an inch of their roots in late spring but then rebounded to produce ripe fruit before an early September freeze. Now that's resilience! Amy LeBlanc suggests the vines should not be pruned because the delicate fruits sunburn easily. **Indigenous Royalties.** ①

4059 *A: 20 seeds, $2.00* *B: 40 seeds, $3.00*
C: 100 seeds, $4.00 *D: 500 seeds, $9.50*
E: 5000 seeds, $54.00

Paul Robeson - Organic (78 days) Ind. This Russian heirloom was named in honor of Paul Robeson (1898-1976) who befriended the Soviet Union. Athlete (15 varsity letters at Rutgers), actor (played Othello in the longest-running Shakespearean production in Broadway history), singer (world famous for his vibrant baritone renditions of Negro spirituals), orator, cultural scholar and linguist (fluent in at least 15 languages), Robeson was an outspoken crusader for racial equality and social justice. Revered by the left, reviled by the right, he was blacklisted during the McCarthy Era and beyond, harassed by the FBI, his passport revoked for eight years, his career stifled. He died broken and almost forgotten, his life a testament to lost opportunities in 20th-c. American history. His namesake tomato developed almost a cult following among seed savers. The **maroon-brick** 6–12 oz oblate often bi-lobed fruits **with dark green shoulders** come closest in flavor to Black Krim, but claim their own distinctive sweet smoky taste. A sandwich tomato with a tang, an extraordinary tomato for an extraordinary man. Some tendency to split. "Does great on my farm in MS," reports Will Reed of Native Son Farm in Tupelo. ①

4060 *A: 20 seeds, $1.95* *B: 40 seeds, $3.00*
C: 100 seeds, $4.00 *D: 500 seeds, $10.00*
E: 5000 seeds, $40.00

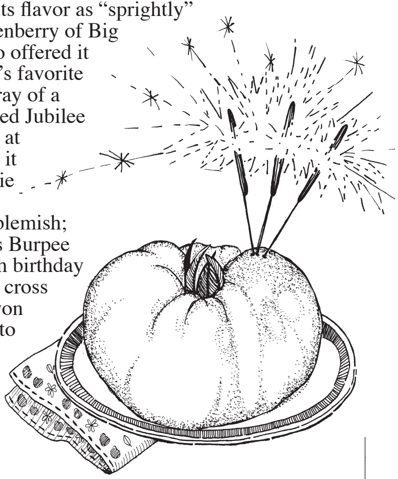
Black Krim - Organic (80 days) Ind. Don't wait too long to harvest this delicate heirloom tomato. At half green and still firm they are already dead ripe and perfectly delicious. If you wait till they are fully purple, you will not be able to get them from garden to table intact (to say nothing of market) and they will disintegrate like a hunk of road-kill. Krims are strikingly **iridescent purple** on the outside, usually **with dark green-black shoulders** and noticeable catfacing. Interiors are part black, too, with an unusual juicy yet meaty taste and texture, described as having "…a smoky flavor like a good single malt scotch." Fruits average 12–18 oz. Krim hails from Krymsk on the Black Sea in Russia. ①②

4061 *A: 0.2g, $3.00* *B: 0.4g, $4.75* *C: 1g, $7.00*
D: 2g, $9.25 *E: 10g, $26.00*

Chocolate Stripes Improved - Organic (75 days) Ind. The talented plant breeders at Wild Mountain Seeds took two strains—Chocolate Stripes bred by Gary Ibsen and Large Barred Boar by Brad Gates—of this **brick-red metallic-striped** tomato and selected for size, strong stems, early-season vigor, disease resistance and productivity. We can vouch for their success: plants are extremely vigorous and productive with uniformly round medium-large 10–15 oz fruits, delicious with a complex fusion of sweetness and earthiness. Fruits hold well off the vine so a great pick for market gardeners. **Breeder Royalties.** ①

4062 *A: 0.2g, $3.80* *B: 0.4g, $4.95* *C: 1g, $7.00*
D: 2g, $11.50 *E: 10g, $29.00*

Golden Jubilee - Organic (80 days) Ind. The best medium-sized open-pollinated **orange** tomato, Jubilee ripens smooth-textured sweet mild meaty 8 oz globes. Amy Goldman describes its flavor as "sprightly" and says it was a favorite of Ben Quisenberry of Big Tomato Gardens in Syracuse, OH, who offered it under the name Golden Sunray. Emily's favorite orange slicer to include in the color array of a tomato appetizer plate. Nikos discovered Jubilee at a Waldo County Extension taste test at Unity College. She brought one in and it was superb, almost on a par with Goldie both for texture and flavor. Jubilee is smaller than Goldie and less prone to blemish; pruning will produce larger fruits. This Burpee introduction, probably to mark the 50th birthday of then-president David Burpee, was a cross between Tangerine and Rutgers, and won an AAS for Burpee in 1943. Resistant to ASC. ①



4065 ***A**: 0.2g, $2.95*
***B**: 0.4g, $4.00*
***C**: 1g, $5.50*
***D**: 2g, $8.00*
***E**: 10g, $25.00*

Yellow Brandywine (82 days) Ind. with potato-leaf foliage. Growing Yellow Brandywine can be maddening. When it's good, it's very very good, but when it's bad it's awful. All strains (and there are several) develop irregularly-shaped fruits in extreme weather fluctuations. Good appearance correlates closely with good eating quality. Compost the weird-looking fruits; enjoy the good ones! Large slightly ribbed 1 lb fruits with an identifiable ring scar at the blossom end are often remarkably smooth, with a creamy texture and rich complex tangy flavor. Not the highest yielding. In the running for best **golden** tomato, but by no means a shoo-in.

Yellow Brandywine - Organic ③
4076 ***A**: 0.2g, $2.95* ***B**: 0.4g, $4.25*

Yellow Brandywine - ECO ①
4074 ***A**: 0.2g, $2.95* ***B**: 0.4g, $4.25* ***C**: 1g, $6.25*
***D**: 2g, $9.75* ***E**: 10g, $27.00*

Pineapple - Organic (85 days) Ind. Garden author Michelle Owen says, "I roast…these exceptionally sweet **red-streaked yellow** tomatoes…in a hot oven, then sauté with ridiculous amounts of garlic, rosemary and extra virgin olive oil and throw over pasta. Before I face the firing squad, I will ask for this as my last meal." With its silky smooth texture and complex fruity taste, Pineapple may be the best striped tomato. Typically grows huge fruits in excess of 1 lb that get a little funky cosmetically. Fruits hold tight to stems so bring scissors to your harvest. Cut in half, it looks like the interior of a pineapple except with yellow and red marbling. It doesn't taste like a pineapple, or like a typical red tomato. Its unique mild low-acid fruity sweetness needs a fruit name all its own. Originally from Kentucky, but our seed stock came from Martha Gottlieb of Common Ground Fair Exhibition Hall fame. ①③
4077 ***A**: 0.2g, $3.45* ***B**: 0.4g, $4.50* ***C**: 1g, $6.95*
***D**: 2g, $10.75* ***E**: 10g, $30.50*

Aunt Ruby's German Green - Organic (85 days) Ind. "The biggest surprise I've ever experienced in tomatoes," said the late Chuck Wyatt, vintage tomato collector. Until you try it, you won't believe a **green** tomato could be this good. I rate it second only to Brandywine for flavor and it is on just about everyone's top-ten list. Oblate 12–16 oz fruits **blush lightly yellow** and develop an amber-pink tinge on the blossom end when ripe. Don't allow them to get too soft before picking. The green flesh of this beefsteak is faintly marbled with pink. Flavor sweet and tart, rich and spicy. The central large tomatoes are the best. Flavor deteriorates when cold weather sets in. Created a sensation at a staff taste test where it was rated "good" or "excellent" by all who tried it. Not just the best green eating tomato, it also makes a delicious basis for a green salsa. Originally from Ruby Arnold's German immigrant grandfather, introduced in the 1993 Seed Savers Exchange Yearbook by Bill Minkey of Darien, WI. Nominated to Slow Food's Ark of Taste. ③
4080 ***A**: 0.2g, $2.75* ***B**: 0.4g, $3.95*
***C**: 1g, $5.75* ***D**: 2g, $8.95*

Weaver's Black Brandywine (85 days) Ind. Potato-leafed. Also known as True Black Brandywine. Not the only attempt at pairing smoky depth of "black" tomatoes with the full tart and sweet balance of Pink Brandywine, but Weaver's Black could be the oldest and is likely the best flavored. Bred by Dr. Harold Martin in late 1920s in Pennsylvania, its irregular flattened large heirloom beefsteak shape looks **coal dusted over crimson**, with shadows of green, purple and brown. Winner of our 2016 taste trial of dusky types, Weaver's flavor intensity of peaty whiskey and rich tomato is not for the faint of heart, and everyone who tries it will have an opinion. Given safe harbor by William Woys Weaver's Roughwood Seed Collection since being kept by his grandfather. The usual delicate handling and quick consumption rules of cherished heirloom tomatoes apply. ②
4086 ***A**: 0.2g, $2.95* ***B**: 0.4g, $4.25* ***C**: 1g, $6.70*
***D**: 2g, $8.50* ***E**: 10g, $24.00*

Lillian's Yellow Heirloom - ECO (88 days) Ind. Lillian's may be a little late, not coming on until September, but is worth waiting for. Superb creamy consistency, meaty flesh and complex of rich deep flavors make this the best-tasting **clear** tomato, a perfect balance of engaging sweetness and intriguing citrus quality in every 1 lb fruit. Won't win any beauty contests, being bi-lobed, oblate and a bit lopsided, but will win taste contests. One bite into one of these beefsteaks and you'll forget about its superficial shortcomings. Carolyn Male rates it among her top 100, we rate it in the top 10. Fruit in clusters of 2 or 3. Prone to catfacing under stressful weather condition. From Lillian Bruce, Manchester, TN. ①
4090 ***A**: 0.2g, $3.75* ***B**: 0.4g, $5.25* ***C**: 1g, $9.85*
***D**: 2g, $11.95*

Ruby Gold - ECO (90 days) Ind. As aesthetically appealing as it is delicious, Ruby boasts prolific beautiful huge **red-streaked yellow** fruits with marbled interior flesh, meaty with superb mild sweet flavor, smooth melting texture with nary a hint of acidity. Gigantic 1–3 lb fruits with gigantic flavor. Introduced by John Lewis Childs of Floral Park, NY, in 1921. Rediscovered by tomato aficionado Ben Quisenberry in Bob's Market in Mason, WV, in 1967. Quisenberry offered it under three different names, Early Sunrise, then Gold Medal and finally Ruby Gold, calling it "the sweetest tomato you ever tasted." Tomato cognoscenti rate it one of the best. Fruits slightly flattened with red spot on the blossom end, seldom cosmetically perfect, prone to radial cracking. ①
4097 ***A**: 0.2g, $2.55* ***B**: 0.4g, $3.75* ***C**: 1g, $5.95*
***D**: 2g, $7.95* ***E**: 10g, $25.00*

Hybrid RED & PINK SLICERS

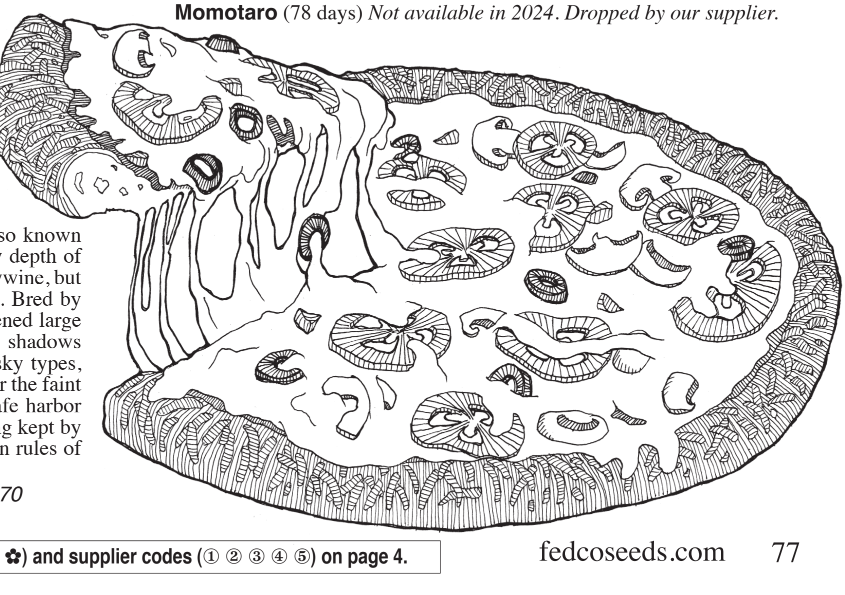
300–500 seeds/g.

Premio (60 days) Ind. A primo early cluster tomato and a centerpiece for our tomato strategy sans hoophouse: to depend on the new generation of flavorful cluster hybrids such as Premio and **4225** Mountain Magic (page 81) for September production after rains and blights have beaten down the favored heirlooms. Delicious Premio gets that job done—between Aug. 31 and Sept. 14, we harvested 97 of its perfectly round red uniform thick-skinned almost 4 oz fruits from just two plants. These ripen 4–8 to a cluster, firm but juicy and refreshing with nice texture, sweetness and flavor and awesome holding quality in the field. Cascades of them keep coming and coming. ⑤
4211 ***A**: 20 seeds, $4.95* ***B**: 40 seeds, $8.00*
***C**: 100 seeds, $15.00* ***D**: 500 seeds, $54.00*

Jet Star (72 days) Compact Ind. As hybrids go, Jet Star has been around for a long time. The 1979 Harris catalog reported, "Our Jet Star met with as great a reception as any introduction we ever offered." It remained their best-selling hybrid tomato for decades. In a test of 16 commercial varieties grown in high tunnels at Highmoor Farm, it had the highest yield of total marketable and premium-quality fruit. The University of Maine Food Lab also rated it the top greenhouse tomato. Year after year it was the best early full-sized red tomato in our trials, ripening prolific quantities of cosmetically perfect 7–8 oz globes with outstanding flavor. The smooth firm fruits almost never scar or crack and have excellent interior and exterior coloration. Resistant to F1 and V. ⑤
4233 ***A**: 20 seeds, $3.45* ***B**: 40 seeds, $5.25*
***C**: 100 seeds, $9.75* ***D**: 500 seeds, $31.85*
***E**: 1,000 seeds, $50.00*

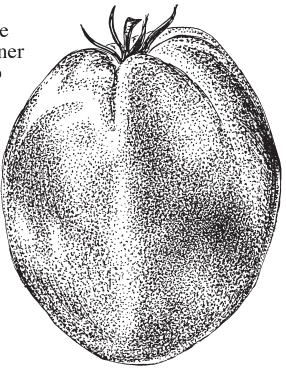
Luci 2103 - Organic (73 days) Ind. In our greenhouses, uniform productive 6 oz Luci was the first of its class to ripen in our trial, setting about 10 clusters, each with 3–4 fruits. We loved Luci for its earliness, uniformity, high yields and disease resistance. Red fruits are flavorful, mild, juicy, a little mealy, rarely crack, never have green shoulders. Beautiful sturdy vigorous healthy plants show good leaf cover. ③
4238 ***A**: 0.1g, $3.95* ***B**: 0.2g, $6.75*
***C**: 0.4g, $10.75* ***D**: 1g, $17.50*

Momotaro (78 days) *Not available in 2024. Dropped by our supplier.*



Open-pollinated PASTE TOMATOES

300–500 seeds/g.

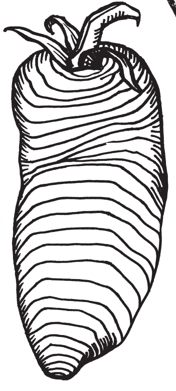


Mr. Fumarole - ECO (65 days) Ind. This large elongated 3–6" pinkish plum tomato was a winner in our 2007 paste test. Comments included "top of the line, rich, complex," "has a crispy brown flavor that lingers," "very flavorful, sweet meaty good," "nice blend of flavors, tart but full tomato flavor," and "sweet, somewhat bland but haunting. I would try it again." Though tough-skinned, can also be eaten out of hand where its tart sweetness pleases. Fair yields. Did not get blossom-end rot, even in 2011 when that disorder was prevalent in other paste varieties. ♣2009. ① **BACK!**

4124 ***A****: 0.2g, $2.50*
B*: 0.4g, $4.00*
C*: 1g, $5.75*
D*: 2g, $8.00*
E*: 10g, $24.00*

Heinz 2653 - Organic (68 days) Det. An early red plum type that often ripens all its 2½–3 oz fruits before frost. Firm fruits for cooking, on compact rather homely plants. "The perfect canning tomatoes for a short-season huge late-blight–pressure area. Small, loaded plants, fruits stayed clean even after all the leaves were gone. Most ripened at once so I could collect a huge canner load from a small number of plants," reported the Wolperts from WV. Our legal department notes: *Our seed originated from plants grown from Heinz 2653 seed; there's no affiliation or association with Kraft Heinz Food Co*. Resists F and V. ①

4125 ***A****: 0.2g, $3.25*
B*: 0.4g, $4.50*
C*: 1g, $6.95*
D*: 2g, $12.50*
E*: 10g, $35.00*

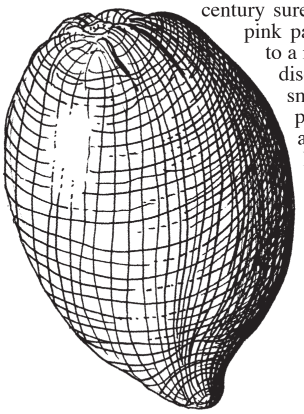


Grandma Mary's - Organic (68 days) Ind. In one of our earliest seed-selection projects, Jeanne Griffin, in Sangerville, northern ME, chose fruit for size and earliness. After 6 years she had it: an heirloom with meaty 6–10 oz fruits that are very early for their size. And this Grandma produces fruit even during cold summers. ♣1992. ①

4131 ***A****: 0.2g, $2.75*
B*: 0.4g, $4.50*
C*: 1g, $7.75*
D*: 2g, $12.25*
E*: 10g, $41.00*

Bellstar - Organic (74 days) Det. Bears red 4 oz round paste tomatoes much larger than most others of this type. Delicious flavor is also good in salads. Victoria Heller of Spangle, WA, calls Bellstar the "best tomato ever! Due to the plant size, I was able to grow sixty plants in a [small] space, resulting in 56 quarts canned in the last two weeks of August along with sauce and paste." Ripening is spread over a long season in central Maine. Bred at Smithfield Experiment Farm in Ontario and introduced in 1981. ①

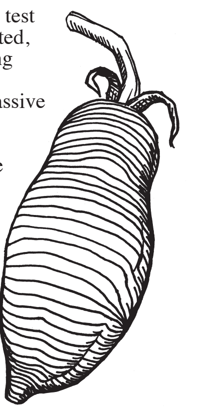
4133 ***A****: 0.2g, $3.25* ***B****: 0.4g, $4.45* ***C****: 1g, $6.95*
D*: 2g, $9.95* ***E****: 10g, $30.00*



Sheboygan - Organic (80 days) Ind. In making their way from their Baltic nation to Sheboygan, WI, Lithuanian émigrés of the late 19th and early 20th century surely left much behind. But this productive pink paste tomato, 6 ounces and subtly tapered to a rounded tip, was held tight in passage. We discovered why in our 2020 trials: resonating, smooth and simply full, like a tomato-cello playing in your mouth. Enjoy fresh, canned and sauced, especially for Balandeliai, Lithuanian cabbage rolls with tomato-sour cream sauce. Regular leaf-type. ②

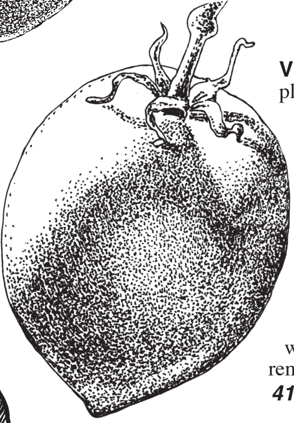
4134 ***A****: 0.2g, $3.75*
B*: 0.4g, $5.50*
C*: 1g, $9.00*
D*: 2g, $13.00*
E*: 10g, $34.00*

Saving Tomato Seed Is Easy! Remove stem-end and crush the fully ripe fruit into a container. Ferment uncovered for a few days until the slurry forms a moldy cap. Rinse in a fine strainer and dry seeds on a coffee filter. To ensure true-to-type seed, grow open-pollinated varieties and separate by 50 feet. See page 38 for more about seed saving.



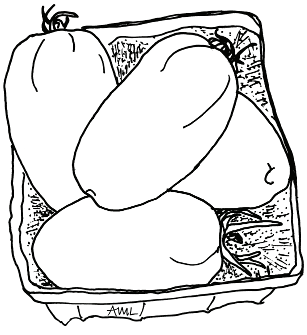
Opalka - ECO (82 days) Ind. Its third time in our taste test proved the charm for Opalka. Our tasters have commented, "an oasis of flavor in a desert of tomato hell," "a pleasing texture and good aftertaste lingers," "round and mellow flavor… full-bodied." Expect copious yields of 3x5" massive solid bull's horn–shaped red fruits with dry texture and few seeds. Also dries well. While some tomatoes falter during hot dry spells, Opalka produces consistently. The crinkly foliage is normal and not an indication of plant disease. Polish heirloom brought by the Opalka family to Amsterdam, NY, around 1900. A shy seed producer, it consistently gets dropped for that reason by commercial enterprises, so we're always happy when this seed crop comes through. ①

4135 ***A****: 0.2g, $2.75*
B*: 0.4g, $4.00*
C*: 1g, $6.00*
D*: 2g, $8.00*
E*: 10g, $28.00*



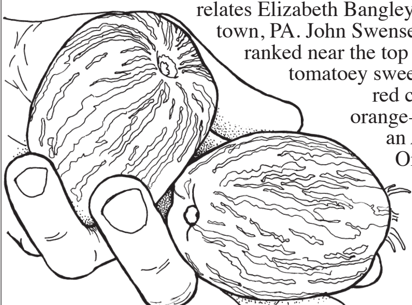
Vilms - ECO (82 days) Ind. What struck us first were the plants: so green, so healthy, without the frilly fern-leaf foliage of most other paste types, with short but strong stocky stems. We counted set after perfect set of small plum pastes. First harvest was mid-August with 20 lb of blemish-free blood-red nippled 2 oz plums from 30 plants. Then 40 lb the next week. Diseases came, Vilms persevered. Another 40-lb week, and another. While other paste varieties went under from blights or rotted, Vilms sweetened merrily in their 20-lb boxes for up to three weeks with few losses. Co-workers who devoured the solid but moist two- or three-bite plums found them good. Whether in salads or sandwiches all were picture-perfect and tasty. When Vilms finally succumbed to weather and fungus, we thrice more gleaned after-ripened fruits from the leafless remains. A multi-purpose, easy-to-grow beauty. ①

4136 ***A****: 0.2g, $2.75*
B*: 0.4g, $3.95*
C*: 1g, $6.95*
D*: 2g, $13.00*
E*: 10g, $32.00*



Orange Banana - Organic (85 days) We never would have believed that the best tomato sauce comes from an orange tomato. But the proof is in the eating and Orange Banana has been a perennial winner of our annual paste taste-offs. Comments from tasters include, "the best flavor and sweetness yet, wow!" and "gourmet candlelight." No wonder Banana became a staple of Fedco board member David Shipman's tomato sauces. Its sprightly sweet flavor, reminiscent of Sun Gold but with more depth and diverse tones, makes an ambrosial sauce by itself and adds a vivid fruity complexity to any sauce with other tomato varieties. Erica Myers-Russo in CT grows it exclusively for drying. She claims it "makes the sweetest dried tomatoes ever." Attractive cylindrical orange fruits 3–4" long average 4–5 oz. Susceptible to blossom-end rot. Originally offered by Moscow seedswoman Marina Danilenko in the 1996 Seed Savers Yearbook. ①

4137 ***A****: 20 seeds, $2.00* ***B****: 40 seeds, $3.00*
C*: 100 seeds, $4.00* ***D****: 500 seeds, $9.00*
E*: 5000 seeds, $30.00*



Speckled Roman - Organic (85 days) Ind. "A knock-out at market last year. Eye-catching with yellow-striped scarlet skins. My customers bought them singly for fresh eating and in baskets for cooking into sweet sauces," relates Elizabeth Bangley of Hawk's Hill Farm in Georgetown, PA. John Swensen's psychedelic-looking creation ranked near the top in our 2005 sauce test for its rich tomatoey sweetness and good texture. Roman's red cylindrical fruits are covered with orange-yellow striations, something like an Amish Paste with stripes from an Orange Banana. The actual parents are Antique Roman and Banana Legs, and the fruits have the distinctive nipple of the latter. Plants bear an abundance of meaty 4–5 oz fruits. Susceptible to disease in cool wet seasons. ①

4138 ***A****: 0.2g, $3.25*
B*: 0.4g, $4.25*
C*: 1g, $6.25*
D*: 2g, $8.95*

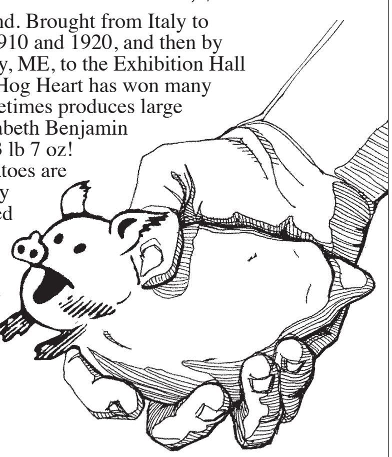
Why did the tomato blush?
Because it saw the salad dressing.
– Serena and Curtis from Stratford, NY

We ship seeds to Canada!

Amish Paste
SAUCE

Amish Paste - Organic (85 days) Ind. Always among the most popular items in the Seed Savers Exchange. Listed members' comments tell all: "large red meaty fruit," "wonderful paste variety," "great flavor for cooking, canning or fresh eating," "the standard by which I judge canning tomatoes," "huge production," "great for sauces, salsa, canning." Strong producer of oxheart fruits up to 8 oz with thick bright red flesh. Larger and better than Roma. Flavor has been consistently good even in poor tomato years. Wisconsin heirloom from Amish farmers in the 1870s, first surfaced in the 1987 SSE Yearbook. We have observed some inherent variation, based on how this variety responds to its environment. Needs room and good nutrition to set mostly nippled fruits. Crowding, shading or stress reduces fruit size and nippling. Boarded Slow Food's Ark of Taste. ①②③

4140 ***A***: *20 seeds, $1.95*
B: *40 seeds, $3.15*
C: *100 seeds, $4.95*
D: *500 seeds, $13.00*
E: *5000 seeds, $55.00*



Hog Heart - Organic (86 days) Ind. Brought from Italy to Massachusetts, probably between 1910 and 1920, and then by Susan Eastman and Ed Lacy of Gray, ME, to the Exhibition Hall at the 1988 Common Ground Fair, Hog Heart has won many admirers. So-named because it sometimes produces large red heart-shaped double fruits. Elisabeth Benjamin grew a triple in 2013 that weighed 3 lb 7 oz! More often, though, its 6–8 oz tomatoes are shaped like banana peppers. A meaty paste tomato noted for its sparse seed cavity, good solids and excellent flavor fresh, canned or frozen. It is late for extreme northern areas and some fruits catface. "For my money the best paste tomato going," says Amy LeBlanc. ☙1999. ①

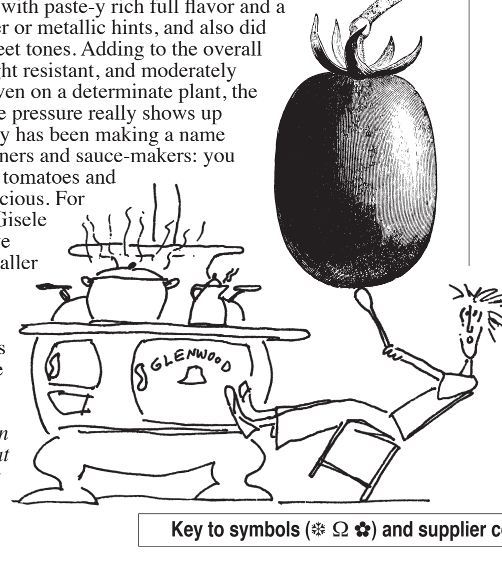
4141 ***A***: *0.2g, $3.00*
B: *0.4g, $4.25*
C: *1g, $7.35*
D: *2g, $10.15*
E: *10g, $29.00*

Blue Beech - Organic (90 days) Ind. This large elongated red Roma type came to us acclimated to chilly Vermont, so it is better adapted to cold climates than Roma. Makes a richly textured sweet sauce that's just brimming with flavor. Won our sauce test in 1997, besting several well-known varieties. "Also very fine for fresh eating," says Lillian Kuo of Orleans, MA. We received seed from Annette Smith of Blue Beech Farm in Danby, VT, and named the variety in her honor. Smith got the tomato from her neighbor's niece's uncle who brought it to Vermont from Italy during World War II. Fruits, not very seedy, averaging 6–8 oz, often have green shoulders. Needs long season, but our increasingly mild extended falls have facilitated ripening. ☙1999. ① **BACK!**

4146 ***A***: *0.2g, $3.35* ***B***: *0.4g, $5.45* ***C***: *1g, $6.95*
D: *2g, $10.45* ***E***: *10g, $27.00*

Hybrid PASTE TOMATO

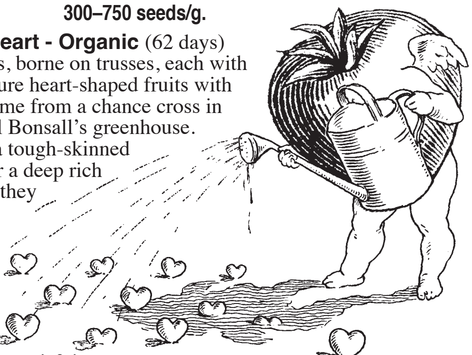
About 350 seeds/g.



Plum Regal (75 days) Det. Fedco staff whipped up a day-long paste-taste in 2019, saucing 20+ varieties. Plum Regal topped the hybrids and had high marks even compared to some excellent heirlooms. Its deep red sauce was smooth, meaty, with paste-y rich full flavor and a nice acid balance. No bitter or metallic hints, and also did not err into saccharine-sweet tones. Adding to the overall package, Regal is late-blight resistant, and moderately resistant to early blight. Even on a determinate plant, the ability to withstand disease pressure really shows up in a high yield. This variety has been making a name for itself among home canners and sauce-makers: you know you will get enough tomatoes and the end results will be delicious. For the ones that don't ripen, Gisele and Jim McLear report "we were delighted that the smaller green ones kept well and slowly ripened over the winter; we ate the last one in mid-February and it was still tasty." High resistance to LB, F, V, TSWV; intermediate resistance to EB. ④ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Open-pollinated
CHERRY, GRAPE & SALAD TOMATOES

300–750 seeds/g.



Gardener's Sweetheart - Organic (62 days) Ind. These Sweethearts, borne on trusses, each with 6–8 **bright red** miniature heart-shaped fruits with a nipple on the end, came from a chance cross in master-seed-saver Will Bonsall's greenhouse. We used to think that a tough-skinned tomato couldn't harbor a deep rich flavor inside. Because they will keep seemingly forever on the vine, the trick is to wait to harvest until they are deep red—they'll keep getting sweeter and reach full flavor. Only then are they truly satisfying. This mating of juicy, flavorful but crack-prone **4104** Gardener's Delight (page 80) with determinate paste tomato Royal Chico (good solids, dry pulpy flesh, tough skin and indifferent flavor) combines most of Delight's richness with some of Chico's toughness. Firm, hard fruits average 15–16g and don't fall apart or crack under any circumstances. Bring them inside, they will likely keep for weeks. Ideal in shish kabob, they probably would make a superb tomato sauce if one has the patience. **Breeder Royalties** ①

4103 ***A***: *0.2g, $3.50* ***B***: *0.4g, $4.50* ***C***: *1g, $8.50*
D: *2g, $12.00* ***E***: *10g, $30.00*

Honeydrop - Organic (62 days) Rampant Ind. From a selection of F-1 Sunsugar, Rachel and Tevis Robertson-Goldberg of Crabapple Farm in Chesterfield, MA, developed Honeydrop and sent us the original seed, with their blessing to keep the production going. Honeydrop's sweet juicy fruity **honey-colored** treats taste almost like white grapes. They are much less prone to cracking in wet weather than **4250** Sun Gold (page 81). Seeking to add another light-colored cherry to our selection, we trialed it against Blondkopchen, Dr. Carolyn, Isis Candy, Lemondrop and Weissbehart. It bested them all by such a wide margin in earliness, sweetness and complexity that we declined to add any of those others. Parthenocarpic. ☙2009. **Breeder Royalties. OSSI.** ① **BACK!**

4106 ***A***: *0.2g, $3.25* ***B***: *0.4g, $4.50*
C: *1g, $6.75* ***D***: *2g, $10.00*
E: *10g, $28.00*

Pink Princess Gene Pool (62 days) Rampant Ind. From the originators of Honeydrop comes the even more exciting Pink Princess, a recessive pink-fruited sport of the Honeydrop. We have never tasted a **pink cherry** tomato as deliciously sweet. Our seed grower of this year's crop said it was the best OP cherry tomato she had ever tasted. In its short lifetime, Princess has already become a classic. Large and early for a cherry tomato, the fruits, averaging 12.7g, begin maturing early in August. The thick skins, somewhat resistant to cracking, detract not one iota from the eating experience. In blind taste tests performed by Tom Vigue, most people have preferred it to **4250** Sun Gold (page 81). Princess has a different irresistible quality that keeps us coming back for more. Emily Skrobis's second favorite cherry tomato (after Sun Gold): "Irresistible snacking. Frosty pink color makes them look like the sweetest sugary jellybeans, especially paired in a bowl with perfectly ripe Black Cherry tomatoes." Still a work in progress, with a small percentage of off-types; all good eating. Slow to give in to LB. Parthenocarpic. ☙2013 **Breeder Royalties. OSSI**

Pink Princess Gene Pool - Organic ① **BACK!**

4105 ***A***: *0.2g, $3.45* ***B***: *0.4g, $4.95*
C: *1g, $6.75* ***D***: *2g, $9.95*
E: *10g, $27.00*

Pink Princess Gene Pool - ECO ①

4107 ***A***: *0.2g, $3.25*

Be My Baby - Organic (65 days) Ind. This productive cherry is the ongoing result of a cross of three famous tomatoes: an heirloom potato-leaf beefsteak and two cherries, one orange and one red. The crossing and selection process for a **red cherry** with regular tomato foliage began in 1997 and is now complete. The grape tomato in its background lends a rich sweet flavor somewhat akin to that of Sweet Baby Girl, which it replaced. Bred by Relentless. ☙2007 **Breeder Royalties. OSSI** ①

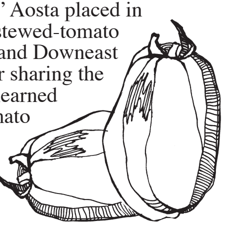
4108 ***A***: *0.2g, $2.75* ***B***: *0.4g, $3.95*
C: *1g, $6.15* ***D***: *2g, $9.00*
E: *10g, $25.00*

Potassium Nitrate (KNO_3) Also known as saltpeter, used to soften the coat of many seeds to expedite germination. Recommended for brassicas, eggplant, peppers, tomatoes, basil, endive, radicchio, and most flower seed. Comes in fine granular form. Dilute 1/2 tsp in 1 qt water. Use as a pre-soak for seed or to water seedling flats. 10g packet contains 2 tsp. *Note: Not allowed for certified-organic use.*

3999 ***A***: *10g, $2.50*

more OP CHERRY, GRAPE & SALAD

Aosta Valley - ECO (65 days) Ind. From the mountainous region of NW Italy comes a short-season tomato with exceptionally rich flavor. Prolific clusters of 10–12 small (1½") **very shiny red** fruits hold on the vine and can be picked all at once. The elongated five-sided fruits have thick walls and tiny seeds. Excellent fresh, stewed or added to sauce. They dry well, too. Our grower calls them "unreal: pristine all season long." Aosta placed in the top 3 of our of 25 paste tomatoes in our recent stewed-tomato tasting and is gaining a cult following in Midcoast and Downeast Maine. Thanks to Ray Carbone of Steuben, ME, for sharing the seed he brought back from his mountain trek. Ray learned seed-saving from his Uncle Harold who grew a tomato vine from a seed he picked out of his teeth while on the plane back from a different trip to Italy. Blight resistant. ①



4030 ***A**: 0.2g, $3.75* ***B**: 0.4g, $5.50*

> Second year ordering from Fedco after a pretty successful 2022 even with the drought. Biggest tomato havest? Aosta Valley did not stop and wound up with bags of roasted tomatoes for the freezer.
> – Joann from Marstons Mills, MA

Tropical Sunset - Organic (65 days) Ind. Crazy beach-party color combo of **orange and rosy red streaks**, reminiscent of our favorite bicolor beefsteaks like Gold Medal, Pineapple, or Striped German, but shrunk to a 1½" tender-skinned round **cherry** with fruity sweetness and mild acid balance. At markets, the visual pull of a quart of mixed cherries is irresistible, and the flavor keeps everyone snacking. We munched and compared cherry tomatoes in the trial gardens tended by Anna Goff in Deer Isle, ME, where the coastal sunsets are not tropical, but stunning nonetheless. Part of the Cream of the Crop tomato series. ②

4035 ***A**: 10 seeds, $2.95* ***B**: 20 seeds, $4.45*
***C**: 40 seeds, $7.75* ***D**: 100 seeds, $14.25*
***E**: 500 seeds, $41.00*

Gardener's Delight (68 days) Ind. Also known as Sugar Lump, and of German origin, but not an heirloom as we once believed. Introduced by Ernst Benary in 1950-51. A parent of the famous hybrid Sweet 100. Produces the kind of rich sweet **deep red** 1+" **cherries** that you will want to pop into your mouth in profusion while you bask in the garden sunshine. The large plants need staking and will bear till frost. The fruits taste so good that we overlook their annoying tendency to crack.

Gardener's Delight ③
4104 ***A**: 0.2g, $2.25* ***B**: 0.4g, $3.25* ***C**: 1g, $4.75*
***D**: 2g, $6.50* ***E**: 10g, $16.00*

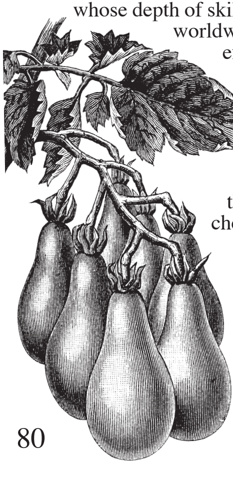
Gardener's Delight - Organic ③
4109 ***A**: 0.2g, $2.50* ***B**: 0.4g, $3.75* ***C**: 1g, $5.25*
***D**: 2g, $7.00* ***E**: 10g, $20.00*

Sweet Aperitif (70 days) Ind. These dime-sized **red** flavor heroes entranced our tasting staff: Roberta said Aperitif was "so sweet, keeps coming as I chew." Carol added, "They look like jewels and taste amazingly sweet." Bright red ⅞" Aperitif is sized like a huge currant or very **small cherry**. This diminutive delight gave twice as vigorous ongoing production and taste wallop as many other standard red cherries in our 2018 trial. Nikos guessed the cocktail crowd would like to experiment with them: indeed, the rich juice disperses through the mouth carrying a sweet full tomato essence.

Sweet Aperitif ②
4111 ***A**: 10 seeds, $2.50* ***B**: 20 seeds, $3.75*
***C**: 40 seeds, $5.50* ***D**: 100 seeds, $9.95*
***E**: 500 seeds, $36.00*

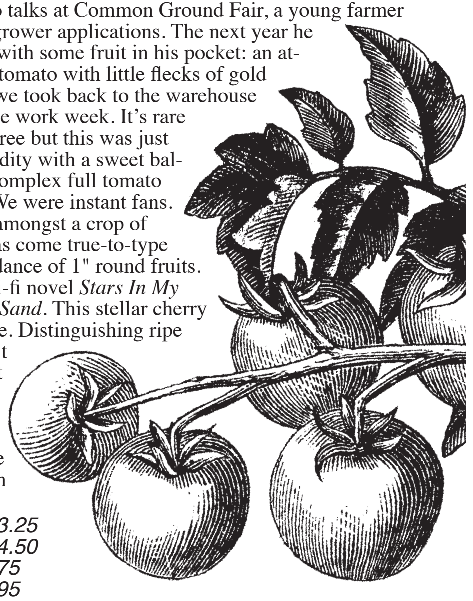
Sweet Aperitif - Organic ①
4110 ***A**: 10 seeds, $2.75* ***B**: 20 seeds, $3.95*
***C**: 40 seeds, $5.95* ***D**: 100 seeds, $12.00*
***E**: 500 seeds, $40.00*

Flaming Burst (70 days) Ind. Tomato breeder Tom Wagner is a true auteur, whose depth of skill and imagination amaze us. Millions of gardeners worldwide know his **4057** Green Zebra (page 76), but his efforts have developed countless other breathtaking visual and flavor combinations. Flaming Burst is a "small" departure from the streaks and zigs that ornament many of his creations: 1¼ x 1" **golden mini pears** cluster on a steadily productive plant. Meaty but not dense, juicy and sweet but tangy, not insipid, delivering the correct flavor combination that so many yellow cherries and pears lack. With Flaming Burst, Wagner shows again his mastery of color and shape, also his talent for nuance. ②



4112 ***A**: 10 seeds, $2.50*
***B**: 20 seeds, $3.75*
***C**: 40 seeds, $5.50*
***D**: 100 seeds, $10.75*
***E**: 500 seeds, $36.00*

Pocket Star - ECO (74 days) Ind. A few years ago after Nikos gave one of her Grow-for-Fedco talks at Common Ground Fair, a young farmer took away one of the grower applications. The next year he showed up at the Fair with some fruit in his pocket: an attractive **green cherry** tomato with little flecks of gold around its crown that we took back to the warehouse taste kitchen to start the work week. It's rare when our tasters all agree but this was just such a rarity: "nice acidity with a sweet balance that moves into complex full tomato flavor. Meaty. Yum." We were instant fans. He says it showed up amongst a crop of not-green tomatoes, has come true-to-type and produces an abundance of 1" round fruits. He named it for the sci-fi novel *Stars In My Pocket Like Grains of Sand*. This stellar cherry tomato is sure to please. Distinguishing ripe green fruit is easy: fruit begins to show a slight golden yellow at the base when ready for harvest. The grower is selecting for more ease of snapping the stem in harvesting. ①



4113 ***A**: 0.2g, $3.25*
***B**: 0.4g, $4.50*
***C**: 1g, $6.75*
***D**: 2g, $9.95*
***E**: 10g, $27.00*

Black Cherry - Organic (75 days) Ind. Two-bite cherries (avg 14–28g) with the dusky color and complex flavor typical of the best **black** tomatoes, juicy and delicious. Somewhat late for a cherry tomato, but worth the wait. Fruit ripens slowly and individually until frost. Examine each plant closely at picking time: the dark-hued cherries are easy to lose in the foliage. Best flavor if left to ripen on the vine till nice and dark. Seems to tolerate the usual tomato diseases but fruits will crack readily in rainy weather. Combine with Sun Gold and any bright red cherry for a lovely display. Brix 7. Developed by Vince Sapp of Tomato Growers Supply and released 2003. ①

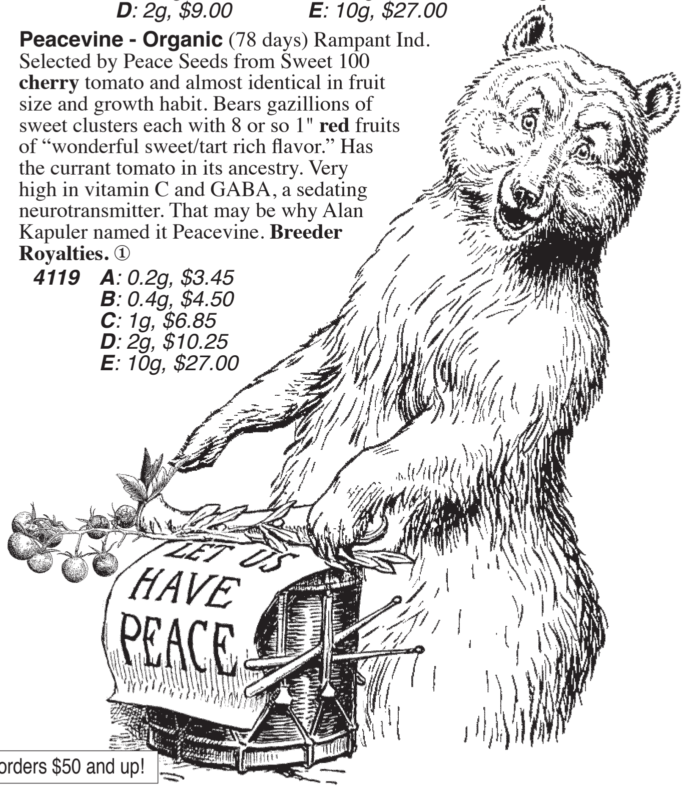
4115 ***A**: 0.2g, $2.75* ***B**: 0.4g, $3.85* ***C**: 1g, $5.25*
***D**: 2g, $7.75* ***E**: 10g, $22.00*

Principe Borghese - Organic (75 days) Vigorous Det. An Italian heirloom with excellent flavor. Used for sun-dried tomatoes as it has few seeds and little juice. In our humid climate, we require a dryer, a 100° oven or a greenhouse to dry the fruits successfully. "Meaty, firm, tasty," enthuses Emily Skrobis. "Last year four plants yielded 2 gallons of dried halved tomatoes with regular picking and drying. I use a 9-tray Excalibur electric dehydrator and keep it cranking. It's okay that they're simply 'dried' and not 'sun-dried'." Bears **small red** fruits in prolific clusters over a long season. CSA grower Jill Agnew lauds them for holding their perfect shape so well without cracking. ①

4118 ***A**: 0.2g, $2.95* ***B**: 0.4g, $4.25* ***C**: 1g, $6.75*
***D**: 2g, $9.00* ***E**: 10g, $27.00*

Peacevine - Organic (78 days) Rampant Ind. Selected by Peace Seeds from Sweet 100 **cherry** tomato and almost identical in fruit size and growth habit. Bears gazillions of sweet clusters each with 8 or so 1" **red** fruits of "wonderful sweet/tart rich flavor." Has the currant tomato in its ancestry. Very high in vitamin C and GABA, a sedating neurotransmitter. That may be why Alan Kapuler named it Peacevine. **Breeder Royalties.** ①

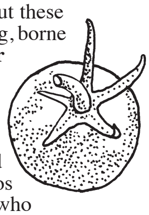
4119 ***A**: 0.2g, $3.45*
***B**: 0.4g, $4.50*
***C**: 1g, $6.85*
***D**: 2g, $10.25*
***E**: 10g, $27.00*



Free shipping for seed orders $50 and up!

Hybrid CHERRY, GRAPE & SALAD TOMATOES

350–600 seeds/g.



Sun Gold (57 days) Ind. To quote one customer, "Without these little babies, there's no summer." Small fruits averaging 8.2g, borne in prolific clusters, ripen very early to a rich **apricot color** and keep producing till frost. A perfect combination of deep sweetness with a hint of acidic citrusy tartness, so good that for almost a decade it took away our incentive to trial **cherry** tomatoes because no others could match it. In a field replete with choices, we are drawn to Sun Gold like candy. Many get eaten out of hand in the garden. Nikos plants several at her garden entrance to be enjoyed by all who visit. Quart after quart grace the table, yet we rarely reach surfeit July through September. Once a year Emily makes a pure Sungold tomato sauce: "It's a sweet and sprightly delicacy that pairs nicely with fresh shell beans. Too sweet to eat in quantity, but it's a wonderful treat!" Very prone to split so pick early when rains are forecast. Seldom diseased, we find that stripping diseased leaves results in new healthy growth and prolongs harvest. Brix 8. Resists F1, TMV. ⑤

4250 ***A**: 20 seeds, $3.95* ***B**: 40 seeds, $5.50*
***C**: 100 seeds, $12.00* ***D**: 500 seeds, $42.00*
***E**: 1,000 seeds, $73.00*

Esterina - Organic (60 days) Ind. Since a full medley of colors is so important now in market displays, we think there is a niche for a true bright **yellow cherry**. Among its many attributes, Esterina is large for a cherry, productive over a long period, disease resistant, crack-free and borne on large clusters. A customer in Portland, ME, mailed their cherry tomato harvest to family in Texas and reports that **4225** Mountain Magic and Esterina traveled very well! Though the flavor will never displace Sun Gold or Sweet Treats, it rates a solid good: a clean juicy sweetness that may bring you back for more. For a true yellow (golden or orange ones not allowed), that's no small compliment! Resists V and TMV. ③

4252 ***A**: 10 seeds, $4.85* ***B**: 20 seeds, $8.15*
***C**: 40 seeds, $13.45* ***D**: 100 seeds, $23.00*
***E**: 500 seeds, $98.00*

Juliet (60 days) Ind. Delectable little plum-shaped fruits come in clusters everywhere, each truss bearing 6–8 of the 1–2 oz **grapes** for an astonishing total of 50–80 glossy **red** fruits per plant. With an engaging sweetness, they make good stewing tomatoes, excellent salad tomatoes, and, despite their juiciness, a tangy sauce with a diverse complex richness and full sweet tomato flavor. Lynn Sagalyn of Philadelphia reports that "Juliet is my favorite tomato for drying. Cut them in half, flip out the seeds and dehydrate…They are like tomato 'raisins'—chewy and sweet to just eat, put on pizza, or add some red to a winter stir-fry." Scout Proft of East Dorset, VT, says, "Entertained by your description, but the plain truth is they are the highest yielding most versatile tomato out there—both for greenhouse and field use in all culinary ways. Period." This 1999 AAS winner is firm enough to hold on the vines for up to two weeks and off the vines for several weeks as well, crack resistant, tolerant to EB and LB, and fairly invulnerable to insect or slug damage. In fact, the only damage we've seen to this fruit is from gastronomic mice. In the short growing season of 2020 Juliet was Nikos's only tomato to withstand a late spring frost. In 2021 we received an anonymous phone message regarding Juliet: "Glorify that little sucker! You set it on the counter for two weeks, it just gets sweeter and sweeter and sweeter." ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Cherry Bomb - Organic (64 days) Ind. Spray-wary gardeners everywhere can celebrate! Johnny's Selected Seeds breeder Emily Haga developed this vigorous hybrid **cherry** tomato not only with explosive flavor, but also added bomb-proof resistance against late blight lineage US 23. The glossy bright **crimson** cherry/grape cross bursts with full tomato zing balanced against a meaty firm texture. Roberta Bailey and Heron Breen swore by Cherry Bomb for superb eating and reliable non-stop production, making sure we gave it a well-deserved place in our catalog. Growers take note: the oval slightly heart shape and distinct long sepals will give unique visual appeal at the farmers' market to make your sales explode. Between the flavor and the look, everyone will want more! LB resistant. ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Lucia (64 days) Ind. Everyone in our taste test kept coming back for more of these super-crunchy **red grapes**. The consensus: these diminutive 5–8g sweet fruits can boast some tartness and complexity. They "taste like a red Sun Gold." Unlike Sun Gold, they have some crack resistance, vulnerable only in cold wet weather. Starting very early, Lucia cranks out tons of bright red fruits great in salads, on pizzas or in sauces. Brix 7.5. ③

4271 ***A**: 10 seeds, $7.00*
***B**: 20 seeds, $12.00*
***C**: 100 seeds, $35.00*

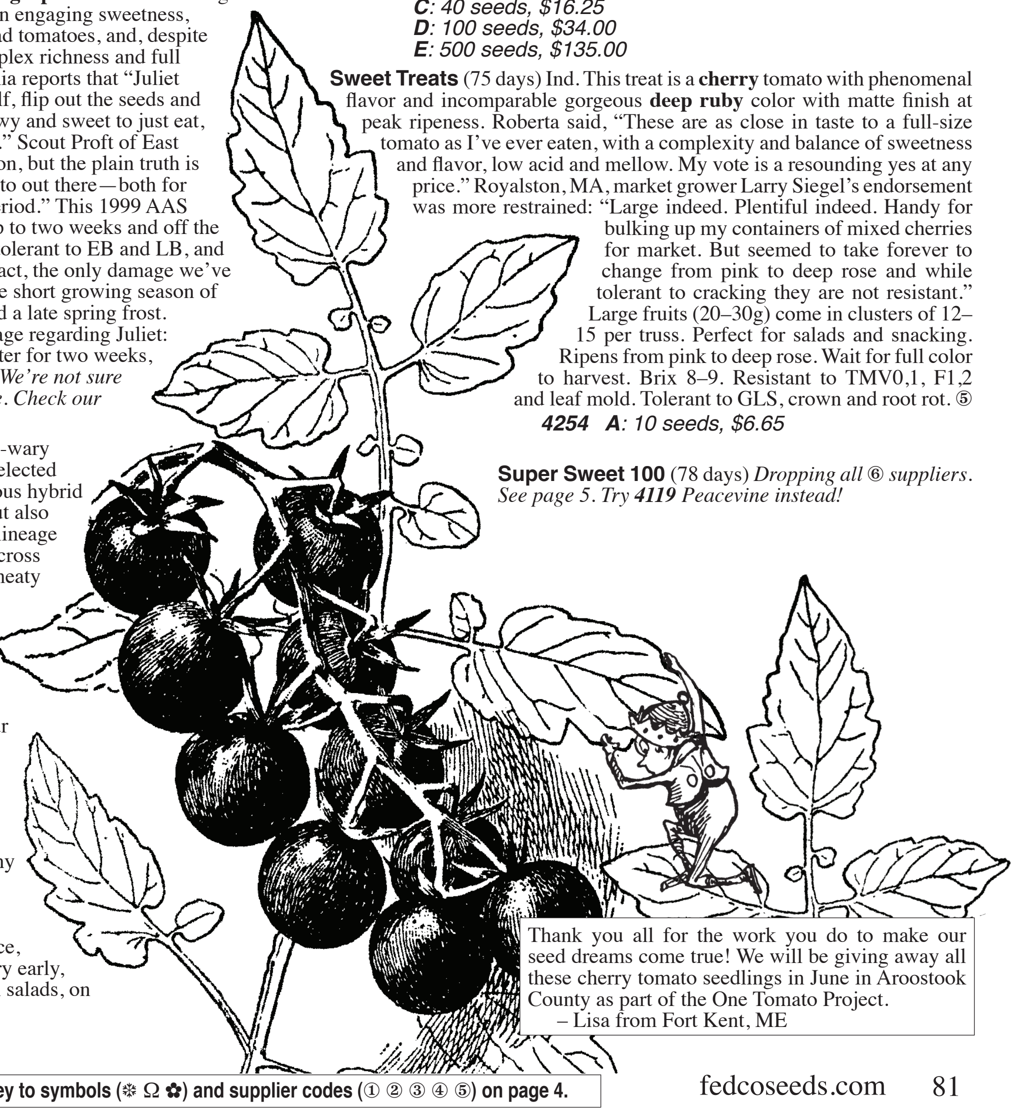
Mountain Magic (69 days) Compact Ind. NC State University's emeritus professor Randy Gardner would be at the top of any list of elite plant breeders. Gardner, who "retired" in 2008 after 32 years, is still adding to his impressive oeuvre of 22 superb tomato varieties, most bearing his signature prefix 'Mountain.' He was among the first to take up the heirloom challenge to breed flavor into his hybrids, and he is among the first to combat LB. Mountain Magic, with grape tomato in its parentage, does both. Even in unstaked unpruned overcrowded tomato jungles, his unblemished round crack-free **two-bite red fruits** stand long. Almost all are marketable, growing in clusters of 7 or 8, 10–11 to the pound. As for production: rousing. During a 15-day period beginning Aug. 31, 2012, CR harvested 106 fruits—all but three perfect—from a single plant. Juicy with a rich sprightly flavor that greatly pleases and refreshes. Sums Bryan O'Hara, "Holy winner! Great vigor and disease resistance, high yields, great sweet flavor…you've got a great one." Resists LB, V, F1-3 with tolerance to EB. ④

4225 ***A**: 10 seeds, $5.25*
***B**: 20 seeds, $9.25*
***C**: 40 seeds, $16.25*
***D**: 100 seeds, $34.00*
***E**: 500 seeds, $135.00*

Sweet Treats (75 days) Ind. This treat is a **cherry** tomato with phenomenal flavor and incomparable gorgeous **deep ruby** color with matte finish at peak ripeness. Roberta said, "These are as close in taste to a full-size tomato as I've ever eaten, with a complexity and balance of sweetness and flavor, low acid and mellow. My vote is a resounding yes at any price." Royalston, MA, market grower Larry Siegel's endorsement was more restrained: "Large indeed. Plentiful indeed. Handy for bulking up my containers of mixed cherries for market. But seemed to take forever to change from pink to deep rose and while tolerant to cracking they are not resistant." Large fruits (20–30g) come in clusters of 12–15 per truss. Perfect for salads and snacking. Ripens from pink to deep rose. Wait for full color to harvest. Brix 8–9. Resistant to TMV0,1, F1,2 and leaf mold. Tolerant to GLS, crown and root rot. ⑤

4254 ***A**: 10 seeds, $6.65*

Super Sweet 100 (78 days) *Dropping all ⑥ suppliers. See page 5. Try **4119** Peacevine instead!*



Thank you all for the work you do to make our seed dreams come true! We will be giving away all these cherry tomato seedlings in June in Aroostook County as part of the One Tomato Project.
– Lisa from Fort Kent, ME

TURNIP & RUTABAGA

- About 6,000–12,000 seeds/oz.

- Days to maturity are from emergence after direct seeding.

Culture: Minimum germination soil temperature 40˚, optimal range 60–85˚. Direct seed at 1 seed per inch, sown in rows 1–2' apart. Thin to 2" apart for small salad turnips, and 3–4" for full-sized roots. Turnips have a shorter growing season and are not as cold-hardy or as good keepers as rutabagas. Turnips are best picked before they get large and fibrous. Rutabagas, also known as swedes or Swedish turnips, form enlarged roots above ground with a finely branched system below.

Disease: DM =Downy Mildew

Note: Because of quarantine, cannot ship rutabagas and turnips in packages larger than half oz. to the Willamette Valley except those that have tested negative for Black Leg and Black Rot. Our information at press time is in the description here; please check our website for updates.

Insect Pest: Adult Cabbage Fly, *Delia* spp., (AKA cabbage root fly, turnip fly) lay their eggs near the base of the main stem of brassica roots. The maggot can damage your root crop. Row cover (page 142) can exclude the adult flies from laying eggs. Long crop rotation between brassica crops and thorough incorporation of all crop debris in fall reduces the overwintering maggots and interrupts the generational cycle. Old-timers in Maine always made the seed bed as clean as possible, with no visible organic matter, and avoided sowing fall turnips and rutabagas until after July 4. A late crop is better than a wormy one!

White Egg Turnip (45 days) *Brassica rapa* OP. A staple of seed catalogs throughout most of the 19th century. Henderson in 1902 praised its perfectly smooth skin and snowy white flesh. Roots are egg-shaped, grow rapidly half out of the ground, ideal for early market bunching before they attain full size. The flesh is very sweet, so mild they can be eaten raw fresh from the garden, also good for pickling. Keeps well; flavor intensifies in storage. ②

2372 ***A**: 1/8oz, $2.75* ***B**: 1/2oz, $3.50* ***C**: 1oz, $4.50*
***D**: 4oz, $8.25* ***E**: 1#, $17.00*

Gold Ball Turnip (45 days) *B. r.* OP. Listed in the *Album Vilmorin* (1854-55) as Robertson's Golden Ball; also known as Orange Jelly. Not truly orange, the skin is smooth and yellow and the soft flesh is golden-yellow. Rather broad leaves of medium height. Although the globes reach 4–5" at full size, they achieve peak flavor and maximum sweetness at 3" in diameter. Alan LePage says "better than rutabagas or any other turnip." A good keeper; he was selling them into March. Maryland market grower Brett Grohsgal concurs, Gold Ball "comes into its own after the frosts and freezes have begun…remains mild and nutty [with] a firm, near-perfect texture. Best simmered or roasted. Pleases even those retail customers who don't really like other turnips, and a strong seller with our chefs." ②

2376 ***A**: 1/8oz, $3.00*
***B**: 1/2oz, $3.75*
***C**: 1oz, $4.50*
***D**: 4oz, $9.00*
***E**: 1#, $14.50*
***K**: 5#, $56.00*

Oasis Turnip (50 days) *B. r.* F-1 hybrid. The closest we've found to the much-sought-after Hakurei turnip, sharing many fine features: smooth round globes, refined pure white color, delicate sweet fruity flavor and crisp tender texture so suitable for salads and light cooking. Our retired purchaser Nikos esteems it highly and people now come in to her garden asking to snack on it by name. Good for fall as well as early summer crops. Best harvested at bunching size, but retains quality for a while. Tolerant to DM. Tested negative for BR and BL. ⑤

2377 ***A**: 1/32oz, $5.10* ***B**: 1/4oz, $14.75*
***C**: 1/2oz, $21.00* ***D**: 1oz, $34.25*
***E**: 4oz, $120.00* ***K**: 1#, $420.00*

Purple Top White Globe Turnip (50 days) *B. r.* OP. Popular variety with purple tops, white bottoms and white flesh can attain 6" in diameter. An heirloom from before 1880. Starks claimed in 1921 that "other varieties are good, but this one stands in a class by itself." Sometimes used to feed livestock, but CR likes them in soups, and Joanna eats them up to golf-ball–sized with the greens.

Purple Top White Globe ②

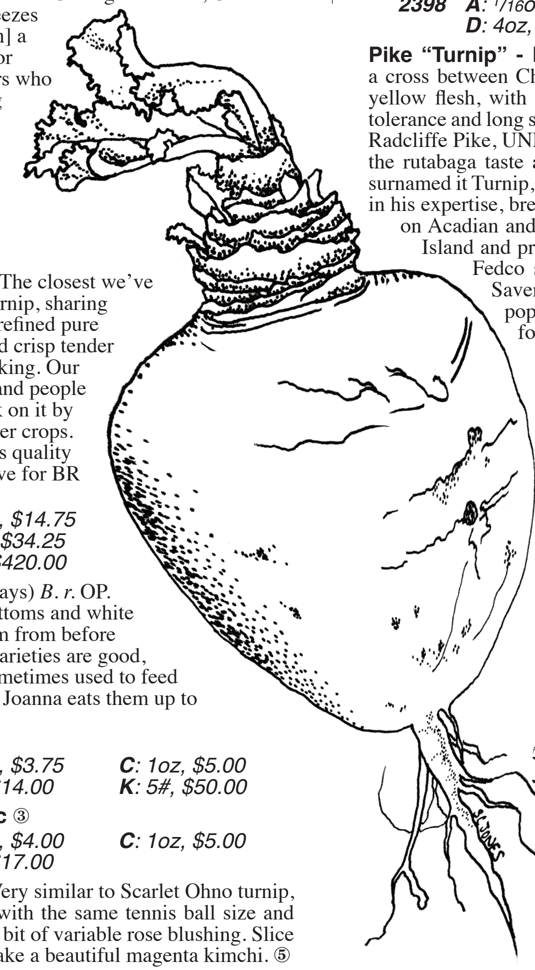
2378 ***A**: 1/8oz, $2.75* ***B**: 1/2oz, $3.75* ***C**: 1oz, $5.00*
***D**: 4oz, $8.50* ***E**: 1#, $14.00* ***K**: 5#, $50.00*

Purple Top White Globe - Organic ③

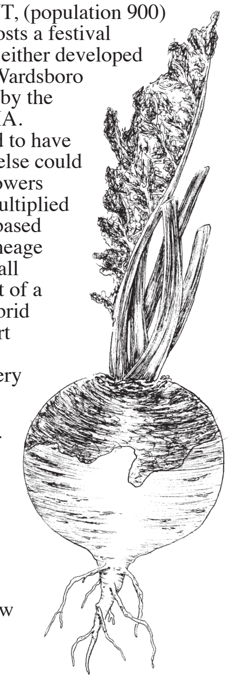
2379 ***A**: 1/8oz, $3.00* ***B**: 1/2oz, $4.00* ***C**: 1oz, $5.00*
***D**: 4oz, $9.00* ***E**: 1#, $17.00*

Red Round Turnip (55 days) *B. r.* OP. Very similar to Scarlet Ohno turnip, Red Round's root is a little rounder, but with the same tennis ball size and bright red skin. Inside flesh is white with a bit of variable rose blushing. Slice them on a crudité platter or use them to make a beautiful magenta kimchi. ⑤

2384 ***A**: 1/8oz, $3.25* ***B**: 1/2oz, $8.75*
***C**: 1oz, $11.00* ***D**: 4oz, $30.00*



Gilfeather Turnip - Organic (85 days) *B. napus* x *B. oleracea* OP. This white-fleshed heirloom has put Wardsboro, VT, (population 900) on the culinary map. Every October, Wardsboro hosts a festival where Gilfeather is served in all the dishes. It was either developed or discovered by John Gilfeather (1865-1944) of Wardsboro in the late 1800s. In the early 1900s he sold them by the cartload in Brattleboro, VT, and Northhampton, MA. Although the lanky and secretive Gilfeather is said to have cut the tops and bottoms off his turnips so no one else could propagate them, some seeds escaped to market growers William and Mary Lou Schmidt, who salvaged, multiplied and commercialized them. After a New England–based seed saver wrote us to inquire about the genetic lineage of this beloved variety, we chatted with Will Bonsall about whether Gilfeather is a rutabaga or the result of a backcrossing. "The rutabaga is an interspecific hybrid cross of true turnip, *B. rapa*, with the wild colewort …*B. oleracea*," said Will. He elaborated that a backcrossing between a rutabaga and a turnip is very unlikely, making Gilfeather, "a somewhat more primitive and unrefined rutabaga unlike the more highly bred, more even-shaped varieties." Sweeter than other rutabagas, not woody even at softball size, they taste better after frost. "Smooth, sweet, silky—we love it mashed with carrots and a small potato," said Susan Lowry of Fryeburg, ME. Amy Burke of York, ME, suggested adding Gilfeather to our season-extending greens list. At the end of January she found them even hardier than Red Russian and Beedy's Camden kales. Listed on Slow Food's Ark of Taste. ❄ ①



2393 ***A**: 1/16oz, $4.00* ***B**: 1/4oz, $8.50*
***C**: 1oz, $17.50* ***D**: 4oz, $53.00*

Laurentian Rutabaga (95 days) *B. n.* OP. This popular Canadian variety sports a deep purple crown and cream-yellow base. Uniform 5–6" almost neckless roots suitable for winter storage, larger and sweeter than American Purple Top. Pale yellow flesh has refined texture and taste. "The mix of a sweet cabbage flavor with a potato-ish texture," summarizes Anne Elder. ③

2398 ***A**: 1/16oz, $3.00* ***B**: 1/4oz, $4.00* ***C**: 1oz, $5.50*
***D**: 4oz, $9.50* ***E**: 1#, $24.00* ***K**: 5#, $95.00*

Pike "Turnip" - ECO (95 days) OP. This special (and interspecial) root, a cross between Chinese cabbage and rutabaga, has very fine-grained tasty yellow flesh, with an exterior much like purple-crowned Laurentian. Frost tolerance and long storage are added benefits. Bred by Downeast Maine native Radcliffe Pike, UNH contemporary of Elwyn Meader, who sought to mellow the rutabaga taste and refine its texture. Grown around Lubec, ME, locals surnamed it Turnip, to add to the genomic confusion. Pike, prolific and diverse in his expertise, bred rhododendrons and a "gasless" bean and was *the* expert on Acadian and Downeast flora. He served as naturalist for Campobello Island and preserved a piece of paradise along Cobscook Bay. Former Fedco staffer Heron Breen combined seed samples from Seed Savers Exchange and local sources to bring a genetically strong population back into existence. He dispersed that seed back to folks Downeast, and now to the wider Fedco community. ①

2399 ***A**: 1/16oz, $4.00* ***B**: 1/4oz, $5.75*
***C**: 1oz, $9.95* ***D**: 4oz, $19.50*

> VERY much enjoy reading about the breeders, and the copyleft and other seed origin/honoring projects.
> – Melody from Pleasant Valley, CT

We ship seeds to Canada!

Fedco's Vegetable Planting Guide 2024

Vegetable	page	avg. sds/oz	sds/100'	Pkt plants	distance apart	thin to	row spacing	seed depth	min soil temp °F	ideal soil temp	hardiness	planting dates
Artichoke	8	560	T	10 pl	3'	–	4'	1/2"	60	70-80	MH	tp late
Arugula	32	15000	3g	60'	1"	4"	18"	1/4"	40	40-55	MH	May 1/Aug 1
Asian Greens	36-38	5000-15000	varies					1/4"	50	65-85	MH	early May
Basil	85-86	17000	5g	10-80'	1/2"	4"	18"	1/4"	65	70-85	VT	June 1
Bean, Bush & Dry	8-12	90	8 oz	25'	3-4"	–	2-3'	1"	60	70-80	T	late May
Bean, Fava	13	17	12 oz	12'	3-4"	–	2-3'	1"	40	40-75	H	ASAP
Bean, Lima	13	65	1#	40-60'	4-6"	–	3'	1"	60	70-85	VT	late May
Bean, Pole	12-13	60	6 oz	7-10'	3-4"	–	6'	1"	60	70-80	T	late May
Bean, Soy	14	80	5 oz	10'	3-4"	–	3'	1"	60	70-90	T	June 1
Beet	14-15	2200	5/8 oz	20'	1"	2-4"	12-18"	1/2"	40	60-85	H	Apr-July
Broccoli	16-17	5000-8000	5g	.5g=10'	1"	24-30"	30"	1/4"	40	65-85	MH	tp May/June
Brussels Sprouts	17	4000-5000	5g	.5g=10'	1"	24-30"	24-30"	1/4"	40	65-85	H	tp May/June
Cabbage	18	6000-7000	5g	.5g=10'	1"	24-30"	24-30"	1/4"	40	45-85	MH	tp May/June
Carrot	20-21	18000	10g	1/8oz=35'	1/4"-1/2"	1"	16-24"	1/2"	40	75-85	H	Apr-July
Cauliflower	19	6000-7000	4g	.5g=12'	1"	30"	30-36"	1/4"	40	55-80	MH	tp May/June
Celery/Celeriac	22	75000	T	500	8"	–	2-3'	1/8"	40	70-75*	T	tp June 1
Chard	33	800-2000	1 1/2 oz	5-13'	2"	12-16"	18-24"	1/2"	40	50-85	H	ASAP
Chicory	33	16000	T	300 pl	1'	–	2'	1/8"	50	60-85	H	tp late June
Chinese Cabbage	37	6000-9000	1/4 oz	25'	1/2"	12-18"	24-30"	1/4"	50	70-80	MH	late May or tp
Corn	23-25	100-155	4 oz	50'	3"	1'	3'	1"	55	60-85	T	late May
Cress	34	9000	3g	50-70'	1/2"	1-2"	18"	1/4"	45	55-75	MH	May 1
Cucumber	26-28	1000	1/2 oz	10'	3"	1'	4-6'	1/2"	65	65-90	VT	June 1 or tp
Eggplant	29	5000-6000	T	40 pl	20-30"	–	30-36"	1/4"	60	75-90*	VT	tp early June
Endive	34	18000	5g	40'	1"	8"	18-24"	1/4"	35	60-85	H	Apr-July
Gourd, large	30	120-280	T	20 pl	6/hill	2-3/hill	6'	1/2"	60	70-90	T	tp early June
Gourd, small	30	500	1/5 oz	10 hills	6/hill	3/hill	4-6'	1/2"	60	70-90	T	late May
Kale/Collards	39-40	5000-8000	5g	1g=20'	1"	12"	2'	1/4"	40	45-85	VH	ASAP-July
Kohlrabi	40	6000	4g	1g=25'	1"	24"	24"	1/4"	40	45-85	MH	tp May/June
Leek	54	9000	T	1g=300 pl	8"	–	2'	1/2"	45	60-70	MH	tp May 1
Lettuce	41-46	25000	4g	1g=25'	1/3"	1'	12-18"	1/8"	35	40-70	H	ASAP-Aug
Mâche	34	10000	1/4 oz	25'	1/2"	2"	18"	1/4"	48	50-68	VH	ASAP-Aug
Melon	47-49	900	T	12-20 hills	3/pot	2/hill	5'	1/2"	60	75-95	VT	tp early June
Mustard	37-38	15600	1/8 oz	50'	1"	4-6"	2'	1/4"	40	65-85	MH	Apr-Aug
Okra	51	350	T	25 pl	12"	–	2-3'	1/4"	60	70-90	VT	tp early June
Onion/shallot	51-53	7000	T	450 pl	4"	–	12-18"	1/2"	40	60-70	MH	tp May 1
Pac Choi	38	12500	1/4 oz	14-25'	1/2"	6-12"	2'	1/4"	50	70-80	MH	May or tp
Parsley	90	14000	1/4 oz	25'	1/4"	1"	12-18"	1/4"	40	50-80	VH	Apr-Aug
Parsnip	54	5600	1/2 oz	25'	1"	2-3"	12-18"	1/2"	46	55-77	VH	Apr-July
Pea	55-56	80	8 oz	25'	1 1/2"	–	3-5'	3/4"	40	50-75	plants H	ASAP
Pea for fall crop	55-56	80	8 oz	25'	1 1/2"	–	3-5'	3/4"	40	50-75	T	July
Pepper	57-61	2800-5600	T	15-40 pl	12-18"	–	2-3'	1/4"	60	68-95	VT	tp early June
Pumpkin	72-73	100-280	1/2-1oz	3-8 hills	5/hill	3/hill	6'	1"	60	70-90	T	late May
Radicchio	34	19000	1/2 oz	5-30'	1"	8-10"	18"	1/8"	50	60-85	H	late June
Radish	62-63	2500	1 oz	12'	1-2"	2-3"	18"	1/2"	40	55-85	H	Apr-Aug
Scorzonera	63	2000	5/8 oz	20'	1"	2"	18"	1/2"	50	65-85	H	Apr-Jun
Shiso	38	14000	1g	100'	1-3"	8-12"	18-24"	1/4"	65	68-75	VT	tp early June
Spinach	64	1500-2800	1/2 oz	40'	1"	2-3"	12-18"	1/2"	35	45-65	VH	ASAP
Spinach, fall crop	64	1500-2800	1/2 oz	40'	1"	2-3"	12-18"	1/2"	35	45-65	VH	Aug
Squash, summer	65-66	200-320	1/2 oz	5-8 hills	5/hill	2-3/hill	4'	1"	60	70-90	T	late May or tp
Squash, winter	68-71	120-440	1/2-2 oz	3-15 hills	5/hill	2-3/hill	4-6'	1"	60	70-90	T	late May or tp
Tomato	74-81	9000	T	8-125 pl	3'	–	3'	1/4"	60	75-90	T	tp June 1-10
Turnip/Rutabaga	82	8000-14000	1/3 oz	40'	1/2"	3-6"	18"	1/4"	40	60-85	H	Apr-July
Watermelon	49-50	600	T	7-10 hills	3/pot	2/hill	5'	1/2"	60	75-95	VT	tp early June
Zucchini	66-67	130-240	1 oz	4-6 hills	5/hill	2-3/hill	4'	1"	60	70-90	T	late May or tp

Key

Pkt plants=how many row feet or hills our smallest packet will plant
T = transplanted only, in our climate.
tp = transplant pl = plants g = grams, 28.4g = 1oz.
*Celery and some varieties of eggplant require fluctuating day and night temperatures for good germination.

Hardiness rating:

VT = very tender: will not survive frost; damaged by temps below 40°
T = tender: will not survive frost
MH = moderately hardy: survives light frosts
H = hardy: survives frost generally to the low twenties
VH = very hardy: will overwinter if protected

Approximate planting date:

ASAP=as soon as ground can be worked, does not thrive in heat
Approximate planting dates are for our Central Maine climate. Please make appropriate adjustments for your climate, using hardiness as a guide.

Scarification & Stratification

A few seeds with unusually thick or hard coatings may benefit from **scarification** just before sowing. This is accomplished by nicking them with a knife or lightly scratching them with sandpaper or an emery board.

Some seeds need to be **stratified** before sowing. This tricks the seed into thinking it has gone through winter followed by the gradual warm-up of spring. It is accomplished by first moistening and then chilling the seed for a specified period of time.

Seed counts are provided as a guide, not a guarantee. They vary from cultivar to cultivar and year to year. Planting rates will vary if intensive methods such as beds are used.

Minimum soil temperatures are the lowest that will permit any germination. Expect slow spotty germination if you plant below or above the ideal range. For a good stand and quickest emergence plant as close to the middle of the ideal range as possible. If you have specific cultural questions, consult more detailed resources or get in touch with us.

Herbs at a Glance

Name	item#	Botanical name	ABP	height	uses	part	sow	temp	days	notes	cover	sun
Anise	4405	*Pimpinella anisum*	A	1-3'	S B M	S	DS	M	7-28		L	PF
Anise Hyssop	4406ff	*Agastache foeniculum*	P Z4	2-3'	B M	L F	DW TP	W	7-14	Lt	P	FP
Arnica	4409	*Arnica chamissonis*	P Z3	20"	M O	F	TP	C		St, Lt	N	F
Ashwagandha	4411	*Withania somnifera*	TP/A	2-3'	M	R	TP	M	7-21	Lt	N	FP
Astragalus	4412	*Astragalus membranaceus*	P Z4	18-48"	M	R	DS TP	M	7-28	Sc Sk	L	F
Basil	4414ff	*Ocimum basilicum*	TA	8-24"	S E M	L	TP DW	W	4-10	W	R	F
Basil, Sacred	4468	*O. tenuiflorum*	TA	18-24"	S M	L	TP DW	W	4-10		R	F
Bergamot	4481	*Monarda fistulosa*	P Z3	3-4'	B M O	L	DS DF	M	7-14	Lt	N	FP
Boneset	4484	*Eupatorium perfoliatum*	P Z3	4-6'	M O	L F	DF	C	7-21	St	P	F
Borage	4490ff	*Borago officinalis*	SSA	2-3'	E M O	F L	DS DF	C	7-14		P	FP
Calendula	pg 96	*Calendula officinalis*	SSA	18-24"	M O	F	DS	M	4-14		R	FP
Caraway	4507	*Carum carvi*	SSB	2'	S E M	S L	DS	C				F
Catnip	4509	*Nepeta cataria*	P Z3	1-2'	M B	L	DS DF	M	7-10	Lt	N	F
Chamomile	4511	*Matricaria recutita*	SSA	8-18"	B M	F	DS	M	10-14	Lt	N	F
Chervil	3044ff	*Anthriscus cerefolium*	A	12-18"	S	L	DS	W	7-14	Lt	L	P(F)
Chives	4513	*Allium schoenoprasum*	P Z3	1-2'	S M E	L F	DS	C	7-14		L	FP
Cilantro	4514ff	*Coriandrum sativum*	SSA	1-2'	S E M	L S	DS	C	7-14		R	F(P)
Codonopsis	4520	*Codonopsis pilosula*	P Z4	5-6'	M O	R	TP	M	7-42		N	P(F)
Cumin	4522	*Cuminum cyminum*	A	1-2'	S M	S	TP	M	7-14	PP		F
Dill	4530ff	*Anethum graveolens*	SSA	2-5'	S M O	S L	DS	W	7-21		R	F
Echinacea	4547	*Echinacea purpurea*	P Z3	2-4'	M O	R F	TP DW	W	14-21	St Lt	L	F
Elecampane	4550	*Inula helenium*	P Z3	5-8'	M O	R	TP	M	7-10	Lt	N	FP
Epazote	4552	*Dysphania ambrosioides*	TP/A	2-4'	S M B E	L F	DW	C	7-14		P	F
Fennel, for seed	4560	*Foeniculum vulgare*	TP/A	1-3'	S M E	L S	DS	M	7-14		R	F
Fenugreek	√ *web*	*Trigonella foenum-graecum*	A	10"	S M E	S L	DW	C	7-10		L	F
Feverfew	4572	*Tanacetum parthenium*	P Z4	18-30"	M O	L	TP DS	M	7-14	Lt	N	FP
Garlic Chives	4577	*Allium tuberosum*	P Z4	12-18"	S E M	L F	DS	C	7-14		L	FP
Horehound	4580	*Marrubium vulgare*	P Z3	20-24"	M C	L	TP DS	M	10-21		P	F
Hyssop	4582	*Hyssopus officinalis*	P Z3	12-18"	M O	L F	TP DF	C	7-21		R	FP
Lady's Mantle	√ *web*	*Alchemilla mollis*	P Z3	12-18"	M O	L	TP	M	21-30	St Lt	N	FP
Lavender	4583ff	*Lavandula angustifolia*	P Z5	2-3'	M O	F L	TP DF	W	14-28	St Lt	P	F
Lemongrass	4587	*Cymbopogon flexuosus*	TP/A	3-4'	S B M	L	TP	W	21-42		L	FP
Lemon Balm	4588	*Melissa officinalis*	P Z4	1-2'	B M S	L	TP DS	M	7-14	Lt	N	FP
Lemon Mint	N/A	*Monarda citriodora*	SSA	2-3'	B M	L	DS	M	7-21		R	P(F)
Lovage	4592	*Levisticum officinale*	P Z4	3-6'	S M	L	DS DF	M	10-21		R	F(P)
Marjoram	4615	*Origanum majorana*	TP/A	1'	S	L	TP	M	7-21	W	N	F
Marshmallow	4618ff	*Althaea officinalis*	P Z4	4-6'	M O	R L	DS DF	C	14-21	St	L	FP
Milk Thistle	4629	*Silybum marianum*	SSA	3-5'	M E	S F L	DS DF	M	7-14	Lt	L	F
Moldavian Drag.	4590	*Dracocephalum moldavica*	A	18"	M B	L F	TP DW	M	7-14	Lt	N	F
Motherwort	4639	*Leonurus cardiaca*	P Z3	2-4'	M	L F	DS DF	M	7-21	Lt	L	F
Mountain Mint	4641	*Pycnanthemum incanum*	P Z3	3-4'	B O	L F	DS	C	7-14	Lt	L	FP
Mustard Seed	√ *web*	*Sinapis alba*	A	2-4'	S E M	S	DS	C	7-10		L	F
Nettle, Stinging	4644	*Urtica dioica*	P Z2	3-6'	E M	L	DS	M	10-14	Lt	R	FP
Oregano, Greek	4648	*Origanum heracleoticum*	P Z4	6-12"	S M	L	TP	M	7-21	Lt	N	F
Oregano, Zaatar	4649	*O. syriacum*	TP/A	8-24"	S	L	DS TP	M	7-21		N	F
Parsley	3158ff	*Petroselinum crispum*	B Z3	8-12"	S E M	L	DS DF	M	14-60	Sk	R	FP
Pennyroyal	√ *web*	*Mentha pulegium*	P Z5	8-12"	M O	L	TP	C	10-14		N	FP
Rosemary	4657	*Rosmarinus officinalis*	TP/A	3-4'	S M O	L	TP	M	10-42	St Lt	P	F
Sage, Broadleaf	4664	*Salvia officinalis*	P Z4	2-3'	S B M	L	TP DS	W	10-21	Lt	P	F
Savory, Summer	√ *web*	*Satureja hortensis*	A	12-18"	S M	L	DS	W	7-14	Lt	R	F
Savory, Winter	√ *web*	*Satureja montana*	P Z3	6-12"	S M	L	TP	M	10-21	Lt	N	F
Shiso	pg 38	*Perilla frutescens* var. *crispa*	TA	2-3'	S M O	L	TP	W	7-14	Sk St Lt	L	FP
Skullcap	4679	*S. lateriflora*	P Z4	1-2'	M O	L F	TP	M	14-21	St	P	P
Skullcap, Baikal	4680	*Scutellaria baicalensis*	P Z4	1-2'	M O	R	TP	M	14-21	St	P	F
Spilanthes	4683	*Acmella oleracea*	TA	8-12"	M O E	F L	TP	W	4-10		P	F
Stevia	4684	*Stevia rebaudiana*	TP/A	24"	S	L	TP DW	W	7-21	Lt	L	FP
St Johnswort	4686	*Hypericum perforatum*	SP Z3	1-3'	M	F L	DS DF	M	14-28	St Lt	N	F
Mexican Tarragon	4685	*Tagetes lucida*	A	16-18"	S E	F L	TP	W	4-14		L	F
Thyme	4687	*Thymus vulgaris*	P Z4	10-12"	S M	L	TP	C	14-28	Lt	N	F
Vervain	4692	*Verbena hastata*	P Z3	5-6'	M O	R	TP	M	21-28	St Lt	N	F
Wild Lettuce	4695	*Lactuca virosa*	TP/A	6'	M E	L, latex	DS DF	C	10-21		L	F
Woodruff	√ *web*	*Galium odoratum*	P Z5	6-8"	S M C	L	DS TP	C	21-200	St	L	Sh,P
Yarrow	4699	*Achillea millefolium*	P Z2	1-2'	M O C	F L	DS DF	W	10-14	Lt	N	F

ABP: A=annual, B=biennial, P=perennial, Z=hardiness zone,
TA= tender annual, SSA=self-sowing annual,
SSB=self-sowing biennial, SP=short-lived perennial,
TP=tender perennial, TP/A=tender perennial grown as annual.

height: typical height at maturity.

uses: S=seasoning, M=medicine, O=ornamental, B=beverage,
E=edible, C=ceremony.

part: part that is used: S=seed, L=leaf, F=flower, R=root.

sow: DS=direct sow in spring ASAP, DW=direct sow when soil has warmed
or after danger of frost has passed, TP=transplant, DF=direct sow in fall.

Nearly any herb can be started indoors and transplanted, but this tends to be more work; TP means this method is strongly suggested for best results. Many perennials can be started in early summer indoors or out; they take several years to mature anyway, what's a few months?

temp: suggested soil temperatures for good germination:
C=cool, 60-65˚, M=moderate, 65-70˚, W=warm, 70-85˚.

days: number of days to seedling emergence.

notes: Lt=needs light to germinate,
Sk=soak seed 12-24 hrs,
Sc=scarify seed with sandpaper or emery board, W=water sparingly,
PP=start in peat pots and take care not to disturb root in transplanting,
St=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer. Nearly any herb requiring stratification can be fall-sown outdoors or in a cold frame—let winter do the work for you!

cover: L=cover lightly, P=pat down gently, R=rake or scuffle into soil,
N=no, don't cover.

sun: F=full sun, P=part sun, Sh=shade,
FP=prefers full sun but tolerates part, PF=prefers part but tolerates full,
P(F)=prefers part, tolerates full only in cool or moist areas,
F(P)=prefers full sun, needs part shade in hot climates.

HERBS

- All herbs are **open-pollinated**, except **4459** Round Midnight basil.
- A botanical index is on page 111.

Statements about medicinal use of plants have not been evaluated by the FDA, and should not be used for the diagnosis, treatment, cure or prevention of any ailment. Before using or ingesting any medicinal plant, consult a healthcare practitioner familiar with botanical medicine.

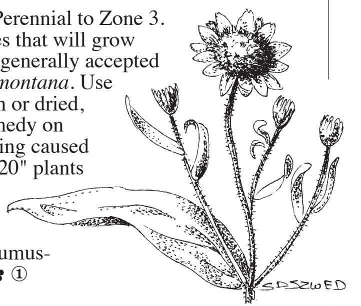
Anise *Pimpinella anisum* (130 days) Annual bears seeds with subtle licorice overtones and a spicy warming flavor. Drunk as a tea in the Middle East. Used in candies, alcoholic beverages and in baking, an essential ingredient in Springerle. Anise helps ease indigestion, gas and colic, also relaxes dry tight coughs. White umbel flowers in July have delicate ornamental value. Seed ripens in August and September—wait until the tips of the fruits turn grey, and collect seeds before they turn black. Direct-sow in spring; requires consistently moist soil to germinate and establish. Seedlings are frost-tolerant. Thin to 1–2'. The 2' plants may need staking. Doesn't thrive in pots. 400 seeds/g. ②④

4405 ***A**: 0.2g, $2.00* ***B**: 1g, $3.00* ***C**: 5g, $5.00*
***D**: 25g, $8.00*

Anise Hyssop *Agastache foeniculum* Perennial to Zone 4. Bushy Midwestern native permeates the air with sweet licorice fragrance. An outstanding insectary plant, its long-blooming nectar-laden purple flowers attract bees and parasitic wasps, butterflies and hummingbirds. Anise-scented foliage and flowers delightful as a tea or culinary seasoning, or filler in mixed bouquets. The tea induces sweating and strengthens the heart, was used also for fevers, colds, and by Native Americans as a cough medicine. Sow or transplant 1–1½' apart in well-drained warm loam. Grows 3' tall, 2' wide. Vigorous self-sower. Not related to anise or hyssop. About 2,600 seeds/g. ✿

Anise Hyssop ③
4406 ***A**: 0.2g, $2.45* ***B**: 1g, $4.15* ***C**: 5g, $8.15*
***D**: 25g, $19.25*

Anise Hyssop - Organic ①
4407 ***A**: 0.2g, $3.00* ***B**: 1g, $5.75* ***C**: 5g, $9.50*
***D**: 25g, $28.00*

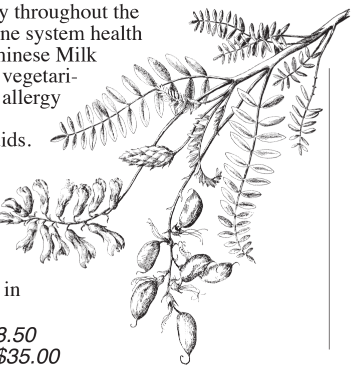


Arnica Chamissonis - Organic *A. c.* Perennial to Zone 3. Meadow arnica is a native American species that will grow successfully in low-elevation gardens. It is generally accepted as a substitute for the official European *A. montana*. Use the yellow flowers at full bloom either fresh or dried, in compresses and salves as an external remedy on unbroken skin to reduce swelling and bruising caused by traumatic injury, and on arthritic joints. 20" plants yield well with multiple flower stalks blooming for most of the early season. Surface sow in pots, then stratify seed and give it light to germinate. Transplant into humus-rich soil in full sun. About 2,500 seeds/g. ✿ ①

4409 ***A**: 0.02g, $2.95*

Ashwagandha - Organic *Withania somnifera* Annual. In Sanskrit its name means 'the vitality of the horse' and it imparts such energy; *somnifera* promotes sleep. An herb of wide value, generally known as the ginseng of Ayurvedic medicine. Upright shrub exceeds 2' with inconspicuous green-to-yellow flowers ripening to red berries. Roots are dried at the end of the growing season and used internally powdered or tinctured (other plant parts are toxic if eaten). Herbalist Deb Soule harvests the roots when the berries ripen in mid-October. Her delightful book, *How to Move Like a Gardener*, (p. 164 in the book section) has more details about ashwagandha. One of the best rejuvenators, especially good for the elderly, it tonifies without overstimulating and can be used in all conditions of weakness and chronic debilitation. Needs warmth and light to germinate. Sow indoors in the spring and transplant out in June; prefers dry stony soil in sun or partial shade. Perennial in Zone 10. About 1,000 seeds/g. ②

4411 ***A**: 50 seeds, $2.95* ***B**: 500 seeds, $8.95*
***C**: 5000 seeds, $19.95*



Astragalus - Organic *A. membranaceus* Perennial to Zone 4. Safe effective adaptogenic tonic to use daily throughout the year, aiding digestion and promoting immune system health (*wei qi*). Called *huang qi* in Chinese and Chinese Milk Vetch Root in English. Especially good for vegetarians. Also used in cases of exhaustion, food allergy or depression, and to increase assimilation, improve digestion, and eliminate excess fluids. In his book *Healing Lyme* Stephen Harrod Buhner says that astragalus can prevent and treat the many symptoms of Lyme disease. Small yellow pea-like flowers on upright 1½–4' stems with vetch-like leaves. Plant in deep well-drained slightly alkaline soil. Harvest 4- to 6-year-old roots in fall. About 250 seeds/g. ②

4412 ***A**: 0.5g, $3.60* ***B**: 3g, $8.50*
***C**: 9g, $15.25* ***D**: 27g, $35.00*

BASIL *Ocimum basilicum*

About 600 seeds/g. Indispensable culinary herb, in cultivation for more than 3,000 years. By far our most popular herb.

Culture: Direct seed when soil warms in late spring or transplant after danger of frost in well-drained moderately rich soil. Young seedlings will damp off if heavily watered during cool cloudy weather. Water sparingly at first. Use row covers (page 142) to enhance early season vigor and speed maturity. Thin to 8–12", top mature plants to induce branching and increase total yield. Harvest before plants blossom. Annual, absolutely intolerant of frost, damaged by temperatures in the mid-30s.

Diseases: Where so indicated our varieties have been sampled and found to be fusarium-free. While not a guarantee that the entire lot is fusarium-free, a negative test improves the odds. No samples were taken for varieties not so indicated.

Sweet (70 days) The heaviest-yielding variety, recommended for drying, all-around great eating, and large-scale pesto production.

Sweet Genova strain. ⑤
4414 ***A**: 0.25g, $1.95* ***B**: 2g, $2.75* ***C**: 7g, $5.65*
***D**: 28g, $8.25* ***E**: 112g, $18.50* ***K**: 336g, $45.00*

Sweet - Organic ②③
4415 ***A**: 0.25g, $2.15* ***B**: 2g, $3.25* ***C**: 7g, $5.95*
***D**: 28g, $9.95* ***E**: 112g, $24.00*

Dolce Fresca (70 days) This Genovese-type impressed us in our 2023 basil trials. Bushes with shorter internodes have a mounded habit that doesn't get leggy, resulting in truly impressive yields! Shapely plants are 12–14" tall and well suited to pots or the field. Dark green glossy leaves have classic sweet Genovese flavor and a marvelously potent aroma that will waft through the garden and charm. Resists powdery mildew. 2015 AAS. ⑤ **NEW!**

4417 ***A**: 0.25g, $3.15* ***B**: 2g, $6.95* ***C**: 7g, $16.50*
***D**: 28g, $48.00* ***E**: 112g, $159.00*

Genovese (70 days) The choice of many connoisseurs for making pesto. Also called Perfumed Basil. Leaves are slightly smaller and finer than Sweet Basil with more aroma and potency.

Genovese ②④
4418 ***A**: 0.25g, $1.75* ***B**: 2g, $3.50* ***C**: 7g, $4.25*
***D**: 28g, $7.85* ***E**: 112g, $15.95*

Genovese - Organic ②③
4419 ***A**: 0.25g, $1.95* ***B**: 2g, $3.85*
***C**: 7g, $4.95* ***D**: 28g, $8.45*

Mammoth No grape leaves available? Lettuce-leaf type has very large ruffled leaves suitable for rolling or stuffing. Flavor similar to sweet basil. Give plenty of space per plant so leaves can dry out after wet spells. Smaller types are easier for drying. ②

4422 ***A**: 0.25g, $2.15* ***B**: 2g, $3.75* ***C**: 7g, $5.95*
***D**: 28g, $9.95* ***E**: 112g, $17.00*

Spicy Globe *O. b. minimum* (70 days) Marvelous little basil grows to about 8" and maintains a compact mound of light green leaves and white flowers. Its leaves are small, thin and strongly scented. Great in an ornamental border, windowbox, or as an indoor potted plant to snip for culinary use. ③

4430 ***A**: 0.25g, $2.75* ***B**: 2g, $4.95* ***C**: 7g, $8.45*
***D**: 28g, $15.85* ***E**: 112g, $38.00*

more BASIL

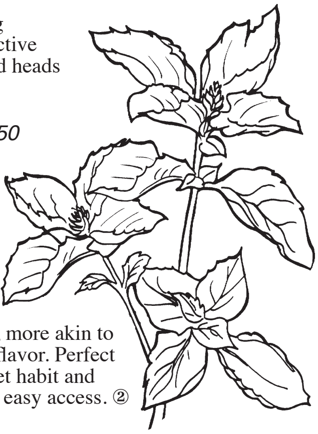
Round Midnight (65 days) F-1 hybrid. This lustrous purple basil lures you from across the garden with its broad dark lightly ruffled gently serrated leaves wafting an aroma of allspice, nutmeg and light musk. Noting the 12–14" stature and well-branched uniform habit, you bend to pluck a tender leaf. Savory with mild pungency. Round Midnight slowly reveals spikes of purple flowers. Tested for fusarium. ⑤

4459 ***A**: 0.25g, $2.95* ***B**: 2g, $5.35* ***C**: 7g, $13.25*
***D**: 28g, $32.00*

Purple Ruffles (85 days) *Dropped for lack of interest.*

Kapoor Tulsi - Organic *O. tenuiflorum* (100 days) A superior strain of Tulsi or Sacred basil, with a more compact growth habit and more pungent sweet flavor. Native to India and used in Indian and Thai cuisine. Spicier than other basils and quicker to go to seed, but still usable when covered with purple flowers. Makes a tasty tea, a Fedco catalog crew favorite at break time, for it strengthens the immune system and increases oxygen uptake in the brain. Used in Ayurvedic medicine as a poultice on acne, ringworm, eczema and insect bites. Plants stand a bit more cold than other basils, and if you're lucky it might self-sow. About 1,500 seeds/g. ①

4468 ***A**: 0.1g, $2.95* ***B**: 1g, $5.95* ***C**: 7g, $11.50*
***D**: 21g, $21.50*



Thai Basil (60 days) Lends its distinctly strong licorice-anise basil flavor to Thai food. An attractive 12–18" fine-leaved plant with purple stems, seed heads and flowers. Good container plant as well. ④

4470 ***A**: 0.25g, $2.65* ***B**: 2g, $4.95*
***C**: 7g, $7.50* ***D**: 28g, $13.50*
***E**: 112g, $39.00*

Flowering Thai Basil - Organic (60 days) In our 2019 basil trials, this outstanding culinary and ornamental strain of Thai basil left us breathless. Sporting the same purple stems and flowers of standard Thai, but displayed upon a strong bushy umbrella form with wide and beautifully ample flowers. Flowering Thai voluminously produces large broad leaves, more akin to Sweet Basil, with excellent savory-sweet anise flavor. Perfect to edge any path or pleasure planting, its bouquet habit and bounty for cooking make it ideal for near-house easy access. ②

4471 ***A**: 0.25g, $2.95* ***B**: 2g, $6.25*
***C**: 7g, $13.50* ***D**: 28g, $36.00*
***E**: 112g, $98.00*

Anise Basil Originally from Persia. Vigorous mulberry-tinted basil with anise fragrance makes a highly decorative tall bushy plant. Slow to bolt. Great in Italian tomato sauces; used in Thai and various Mediterranean cuisines. ③

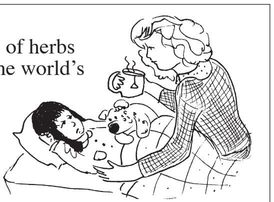
4436 ***A**: 0.25g, $2.25* ***B**: 2g, $4.95* ***C**: 7g, $7.95*
***D**: 28g, $14.95*

Mrs. Burns Lemon (64 days) Chosen for its intense lemony fragrance. Medium-sized bright green leaves. Heirloom variety grown 100 years ago in southeastern New Mexico by a Mrs. Clifton who gave the seed to Mrs. Burns, the mother of one of the founders of Native Seeds/Search, which introduced it commercially in 1983. It has deservedly achieved nationwide fame. ③

4450 ***A**: 0.25g, $2.95* ***B**: 2g, $5.15* ***C**: 7g, $6.75*
***D**: 28g, $9.95*

Sweet Dani Lemon (65 days) *Dropped by our supplier.*

Herbs as Medicine



Archaeological evidence dates the medicinal use of herbs back 60,000 years to the Neanderthals. 85% of the world's population employ herbs as medicines, and 40% of pharmaceuticals in the U.S. contain plant-derived materials. Fewer than 10% of higher plant species have been investigated for their medicinal components. Interest in traditional herbal remedies continues to grow.

You'll find plants with medicinal uses throughout our catalog: burdock (p. 63), calendula (p. 96), Elka poppy (p. 105), alfalfa, mammoth red clover and oats (see Farm Seed, p. 126), just to name a few. More medicinal herbs are available as plants from our Trees catalog. Some herbs are customarily grown from divisions because they cannot come true from seed, such as scented thymes and flavored mints; some require fall sowing of fresh seed, such as sweet cicely and angelica.

When you grow your own herbs, you can be profligate with them in the kitchen. Instead of a sprig here and a garnish there, you can pile on the flavors and the health benefits of herbs as potent food medicine. For ideas about incorporating copious amounts of home-grown herbs into your cooking, check out Brittany Wood Nickerson's book *Recipes from the Herbalist's Kitchen*.

In our Books section (pages 160-167), we carry a few great resources for making plant medicine:

- *Growing Plant Medicine, Volume One* by Richo Cech
- *The Healing Garden: Herbs for Health and Wellness* by Deb Soule
- *Herbal Revolution: 65+ Recipes for Teas, Elixirs, Tinctures, Syrups, Foods + Body Products That Heal* by Kathi Langelier

Wild Bergamot - Organic *Monarda fistulosa* Perennial to Zone 3. Our native wildflower species of the familiar bee balm is a great addition to the perennial border in light dry alkaline soils. The 3–4' plants bear aromatic lavender blossoms highly attractive to pollinators. Leaves impart pungent aroma to teas, potpourri, meats and beans. Traditionally used as an aromatic stimulant to improve digestion and increase perspiration. Native Americans employed it internally to combat colds and flus and externally to calm skin eruptions. About 1,700 seeds/g. ✿ ①

4481 ***A**: 0.1g, $3.75* ***B**: 0.4g, $5.00*
***C**: 2g, $9.00* ***D**: 4g, $16.75*

Boneset *Eupatorium perfoliatum* Perennial to Zone 3. This native wildflower is easy to distinguish when not in flower by the stem that appears to grow through fused leaves, hence another common name, Thoroughwort. Tiny white flowers in fuzzy clusters top the 4' plants in late summer. The name comes from its historical use to soothe "bonebreak fever." More recent German research indicates it may act as an immune stimulant. The bitter tea of aerial parts in bud or bloom can be used in moderation as a tonic or for colds, coughs and flus; in excess it is emetic and laxative. In addition it is an important food source for native bees. Plant 3' apart in moist soil and full sun to dappled shade. 7,000 seeds/g. ✿ ①②

4484 ***A**: 0.1g, $2.60* ***B**: 0.4g, $5.00* ***C**: 2g, $10.25*
***D**: 8g, $26.95*

Borage *Borago officinalis* (55 days) Annual. Gloria Seigars suggests it as a great border for the vegetable garden where the dense plants smother weeds. Donna Dyrek favors it for attracting mason bees. Deb Soule recommends it for courage in these crazy times. Bears many small flowers that open blue, turn purple and then pink and make colorful additions to salads. Enjoy the cooling properties of very young leaves on a hot day. Frozen in ice cubes, it lends cucumber flavor to cold drinks. Borage leaves and flowers are used for fever, cough, depression and to prevent inflammation of the lungs. A nourishing tea for nursing mothers, and also a sedative. Seeds a good source of GLAs. Bushy 2–3' plant likes sun, prefers moist well-drained soil. Can self-sow; young plants are easy to move around. Survives light frosts. About 50 seeds/g. ✿

Borage ②

4490 ***A**: 0.5g, $2.35* ***B**: 4g, $4.15* ***C**: 16g, $6.75*
***D**: 80g, $14.00*

Borage - Organic ③

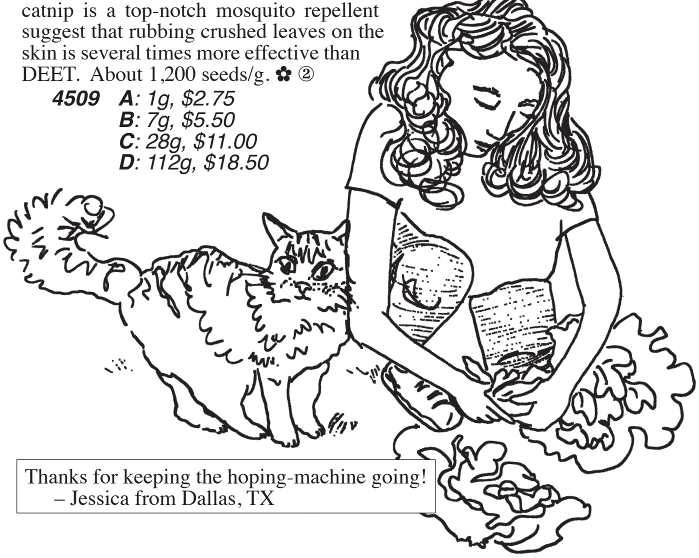
4491 ***A**: 0.5g, $2.95* ***B**: 4g, $4.95* ***C**: 16g, $8.45*
***D**: 80g, $23.00*

Caraway *Carum carvi* Feathery-leaved 2' biennial (to Zone 3) grown primarily for its seeds to season soups, stews, breads and pastries. Leaves are also edible, though milder than the seeds. Direct seed either in early spring or late summer for seeds the second year. Likes full sun, sandy well-drained soil. Can self-sow. About 300 seeds/g. ② *Check our website for organic caraway seed.*

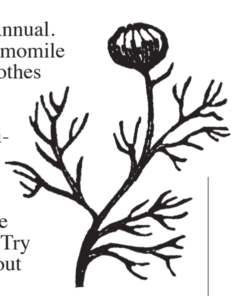
4507 ***A**: 0.5g, $2.75* ***B**: 7g, $3.95* ***C**: 28g, $5.75*
***D**: 112g, $10.95*

Catnip *Nepeta cataria* Perennial to Zone 3. "If you set it, the cats will get it; if you sow it, they won't know it." Hardy perennial, will self-sow once established. Grows to 3' tall and wide. Lavender blooms in late summer are a favorite of honeybees. Likes rich or sandy soils, tolerates poor soil and drought. Tovah Martin writes that rats are reputed to despise it, so it is sometimes used as a companion plant for melons and squashes. Calms mild stomach disorders, produces restful sleep and relieves fever when added to teas. Researchers at Iowa St U who claim catnip is a top-notch mosquito repellent suggest that rubbing crushed leaves on the skin is several times more effective than DEET. About 1,200 seeds/g. ✿ ②

4509 ***A**: 1g, $2.75*
***B**: 7g, $5.50*
***C**: 28g, $11.00*
***D**: 112g, $18.50*



Thanks for keeping the hoping-machine going!
– Jessica from Dallas, TX



Zloty Lan German Chamomile *Matricaria recutita* Annual. Powerful yet gentle, long used to promote relaxation, chamomile is one of the most widely known herbs. Calms nerves, soothes the stomach and irritated skin. Mild sedating properties help insomnia, pain and colic. The flowers have high essential oil content, rich in chamazulene, a powerful anti-inflammatory agent with a wonderful aroma. Zloty Lan, a unique Polish tetraploid, translates as Golden Fields. Robust vigorous 7" plants like moist well-drained soil and can be direct seeded or transplanted. Flower heads are ready to gather when the petals fall back from the center. Try using a blueberry rake to harvest them. Can self-sow. About 1,750 seeds/g. ③

4511 ***A**: 1g, $3.65* ***B**: 3g, $5.25*
***C**: 15g, $10.00* ***D**: 45g, $21.00*

Chervil *Anthriscus cerefolium* (60 days to full maturity) Annual. The Greeks referred to it as *khaire-phyllon*, or 'leaf of joy,' and carried sprigs to bless their friends. Superior slow-bolting strain grows vigorously. Delicate lacy leaves with distinct flavor good in soups, with fish or asparagus. Essential ingredient in mesclun. Direct seed before a rain in early spring or summer in rich well-drained soil with light but constant moisture. Begin harvesting leaves 6–8 weeks after sowing. In warmer locations performs best as a fall crop. Also good for microgreens. About 6,000 seeds/oz. 1/16oz packet about 370 seeds.

Chervil ②

3044 ***A**: 1/16oz, $3.00* ***B**: 1/8oz, $3.50* ***C**: 1/2oz, $4.25*
***D**: 1oz, $5.50* ***E**: 4oz, $9.50* ***K**: 1#, $26.00*

Chervil - Organic ①

3045 ***A**: 1/16oz, $3.25* ***B**: 1/8oz, $4.75* ***C**: 1/2oz, $11.00*

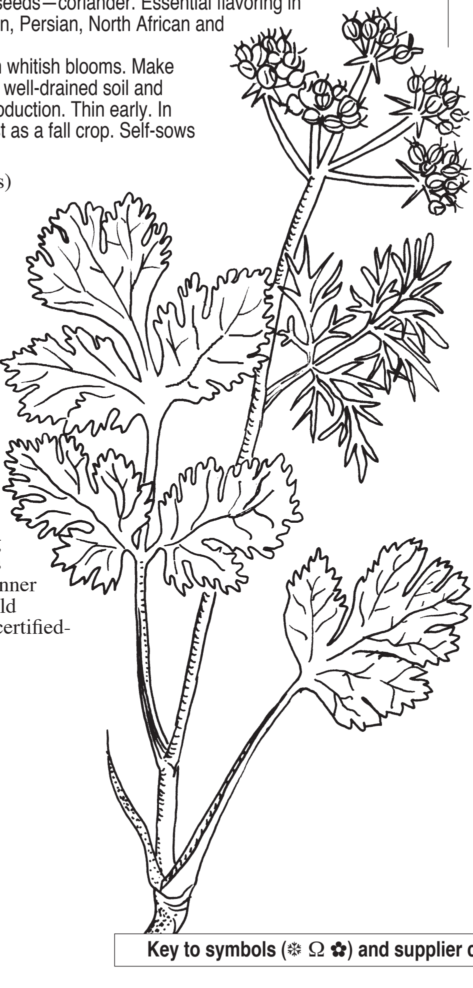
Nelly Chives - Organic *Allium schoenoprasum* (80 days) Perennial to Zone 3. Hollow grasslike 1–2' leaves have subtle onion flavor, providing a fine treat in very early spring. Nelly's dark blue-green leaves are medium-fine, long and slender. Lilac-colored flowers bloom in June and July, can be eaten or enjoyed in arrangements fresh or dried. Used in Asia as a remedy for colds and flu. For best production, grow in well-drained soil and divide clumps every few years. Nearly indestructible even with neglect in extreme conditions. Can be brought inside for the winter. About 900 seeds/g. ④

4513 ***A**: 0.5g, $2.95*
***B**: 7g, $6.25*
***C**: 14g, $11.50*
***D**: 28g, $15.95*

CILANTRO *Coriandrum sativum*

About 60 seeds/g. Used for its fresh green foliage, its edible flowers that attract beneficial insects, and its dried seeds—coriander. Essential flavoring in Indian, Chinese, Southeast Asian, Persian, North African and Latin American cooking.

Culture: Annual grows to 2' with whitish blooms. Make succession plantings in average well-drained soil and keep watered for lushest leaf production. Thin early. In warm locations will stand longest as a fall crop. Self-sows if you let it go to seed.



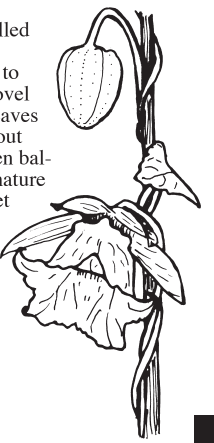
Leisure - Organic (55 days) Kick back! Excellent bolt resistance allows cilantro harvest at your leisure. ④

4514 ***A**: 1g, $2.25*
***B**: 4g, $3.50*
***C**: 28g, $7.00*
***D**: 112g, $14.00*
***E**: 448g, $35.00*

Longstanding (30 days leaf, 45 days seed) *Dropped for 2024.*

Caribe - Organic (55 days) The best of the ten strains of cilantro in our previous trial. Long standing; was only beginning to flower on July 9. In 2018's trials Caribe remained the winner in both taste and ability to hold in the heat. White or yellow certified-organic coating. ④

4517 ***A**: 1g, $2.75*
***B**: 4g, $3.95*
***C**: 28g, $7.75*
***D**: 112g, $22.00*
***E**: 448g, $62.00*



Codonopsis *C. pilosula* Perennial to Zone 4. Also called Poor Man's Ginseng and *dang shen* in China. Used in Chinese medicine like ginseng, but considerably easier to grow than true *Panax* ginseng. Also fun to grow as a novel ornamental. Tendrilly twining vines with small ovate leaves grow to 3–4' long by their second year. Mature vine about 5–6' long. Buds look like green peas, swell to little green balloons, flower as green bells with purple veining, then mature to five-sided-balloon seed pods. Harvest long firm sweet roots with tight skins in autumn at 4–6 years. Used to support energy levels, digestion, immune response, and to clear excess mucus from the lungs. Full sun to part shade, well-drained soil. About 3,700 seeds/g.

Codonopsis ①

4520 ***A**: 0.02g, $3.35* ***B**: 0.06g, $6.95*
***C**: 0.18g, $13.00*

Codonopsis - Organic ① **NEW!**

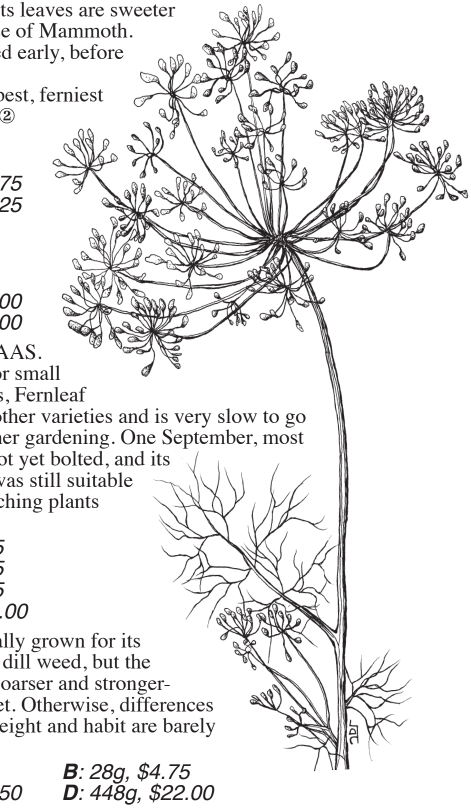
4521 ***A**: 0.02g, $3.50* ***B**: 0.06g, $7.25*
***C**: 0.18g, $13.50*

Cumin *Cuminum cyminum* (100-115 days) Annual. After black pepper, the most widely used spice in the world. Seeds of this culinary cumin are important in flavoring Mexican and Indian cuisine and are said to aid digestion. Foliage is fragrant and ferny, somewhat like dill; but unlike dill, plants grow only 1–2'. Takes a long time to mature so start indoors in cold climates. Our thanks to Lee Cooper for suggesting that we spice up our herb selection with cumin. About 280 seeds/g. ②

4522 ***A**: 0.5g, $2.35* ***B**: 1g, $3.45* ***C**: 6g, $5.95*
***D**: 30g, $9.95*

DILL *Anethum graveolens*

About 500 seeds/g. Name derived from the Norse *dilla*, meaning 'to lull,' as the plant is said to have soothing properties. Best known in this country for pickling, but essential for Ukrainian, Russian, Polish and Hungarian cuisines. Annual, sometimes classed as biennial, grows to 4–5'. Self sows. Upright plant branches out from single stalk; the feathery leaves known as dill weed. Likes well-drained moderately rich soil.



Bouquet (55 days) Bouquet is usually grown for dill weed production because its leaves are sweeter and more refined than those of Mammoth. Foliage should be harvested early, before seed stalks mature. ✿

Bouquet The biggest, best, ferniest strain in our lot grow-out. ②

4530 ***A**: 2g, $2.75*
***B**: 28g, $5.35*
***C**: 224g, $15.75*
***D**: 448g, $19.25*

Bouquet - Organic ③

4531 ***A**: 2g, $2.95*
***B**: 28g, $6.95*
***C**: 224g, $19.00*
***D**: 448g, $26.00*

Fernleaf (55 days) 1992 AAS. A dwarf variety suitable for small gardens or patio containers, Fernleaf grows only half as tall as other varieties and is very slow to go to seed. Perfect for container gardening. One September, most of our May planting had not yet bolted, and its abundant piquant foliage was still suitable for harvesting. Multi-branching plants spread 18–24". ✿ ⑤

4536 ***A**: 0.5g, $3.15*
***B**: 1.5g, $5.45*
***C**: 4.5g, $9.65*
***D**: 13.5g, $24.00*

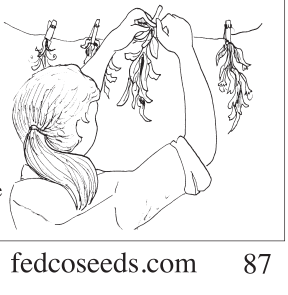
Mammoth Variety generally grown for its seeds. Can also be used as dill weed, but the foliage is slightly darker, coarser and stronger-tasting than that of Bouquet. Otherwise, differences between the two in plant height and habit are barely discernible. ✿ ②④

4542 ***A**: 2g, $3.00* ***B**: 28g, $4.75*
***C**: 224g, $13.50* ***D**: 448g, $22.00*

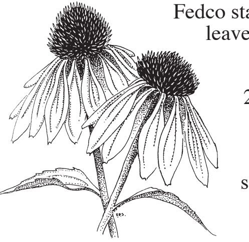
Dried herbs

Drying herbs at home is not difficult. Spread freshly harvested herbs on screens on a warm dry place out of direct sun. Once dry, store them in glass jars. If your house is in a damp marsh, try drying herbs in your car.

Whole leaves retain their flavor at least a year. To use fresh herbs in cooking, triple the dried quantity called for in a recipe.

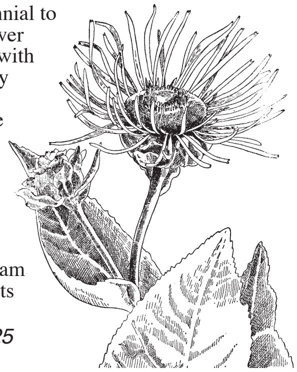


Purple Coneflower - Organic *Echinacea purpura* Perennial to Zone 3. Showy late summer blooms attract butterflies and bees and make good cutflowers. Long downward-curving petals surround large spiny copper-colored centers that collect dew in the morning. Though not a mix, the colorful flowers vary from rose to lavender to purple. Broad toothed leaf. A popular garden perennial since the early 1700s, and possibly the best-known of the medicinal herbs, widely used as an immune stimulant. At least 14 native North American nations used Echinacea for similar purposes: sore throat, toothache, infection, wounds, snake bite and skin disorders. Fedco staffer Joanna Linden likes to tincture flowers and leaves in August and use the same alcohol to tincture seeds and third-year roots in October. Large fibrous roots are easy to harvest. Easy to grow, 2–4' tall, native to a wide range of habitats, from Appalachian woods to Midwest prairies. Start indoors at 70–75°, germinates in 15–20 days. Grow on at 60–65°. Set out 18–24" apart. Self-sows when it's happy. About 215 seeds/g. ✿ ①②



4547 ***A**: 0.5g, $2.50*
***B**: 4g, $5.95*
***C**: 16g, $11.75*
***D**: 48g, $24.00*

Elecampane - Organic *Inula helenium* Perennial to Zone 3. Also known as Horseheal, Wild Sunflower and Elf Dock. Large dramatic plant grows 5–8' with 2–3" bright yellow rayed flowers, blooming May to August. An excellent lung tonic. Important to the ancient Greeks, said to have sprung from the tears of Helen of Troy, thus its botanical name. Mucilaginous root relaxes lungs and helps clear mucus, calms cough. Antibacterial and antifungal, also used for asthma, bronchitis, cough and flu, especially in children. Helpful for scabies, herpes and other skin disorders (an old name is Scabwort). Plant in heavy moist well-drained loam with generous helpings of compost. Harvest roots mid-fall. About 1,600 seeds/g. ①

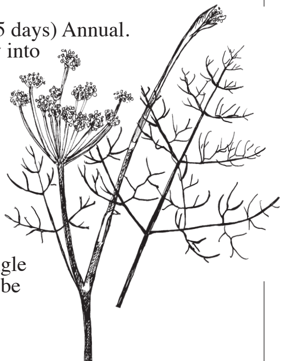


4550 ***A**: 0.1g, $3.50* ***B**: 0.3g, $5.25*
***C**: 1.2g, $10.00*

Epazote - Organic *Dysphania ambrosioides* (55 days) Tender perennial, grown as an annual. Native to Central America, epazote has fame as a culinary herb, most notably added to beans to deepen flavor and to mitigate flatulence. Flavor is safely described as pungent, and depending on your taste buds you might find it oregano-like, citrusy or tasting of creosote. The sharpness comes from a toxic component chemical that repels worms, hence its other common name Wormseed. Use prudently: a dish that calls for one sprig is not improved by two! Don't feed it to children or pregnant women. Flavor does not stand up to long cooking times, so add it to the pot toward the end. To harvest, cut younger leaves from the center, as they are both milder and richer than older leaves. Fresh leaves are preferred to dried. Plants grow 2–4' tall. Can tolerate a bit of frost. *Note: seeds will have calyxes*. ①

4552 ***A**: 0.1g, $3.55* ***B**: 0.4g, $4.95* ***C**: 1g, $7.50*
***D**: 4g, $18.00*

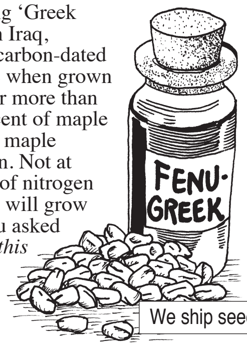
Seed Fennel - Organic *Foeniculum vulgare* (65 days) Annual. This fennel, which doesn't bulb, puts all its energy into making seeds. Although used similarly to anise in cooking, fennel seed is much more medicinal, aiding digestion while reducing flatulence and also soothing bronchial coughs. The seeds shed readily when mature, so you may want to bag seed heads on the plant to contain them. It's easy to grow, although be aware that too much moisture at bloom time can prevent the formation of a good seed crop. Harvested after the flowers turn brown, seeds will continue to dry if spread in a single layer on a screen. In about two weeks they should be fully dried and ready for the spice rack. ②



4560 ***A**: 0.5g, $2.95* ***B**: 3g, $4.25*
***C**: 9g, $5.95* ***D**: 27g, $14.00*

Bulbing and leaf Fennel: see page 29.

Fenugreek - Organic *Trigonella foenum-graecum* (30 days leaf, 120 days seed) Annual. This native to the Mediterranean and western Asia has a name meaning 'Greek hay' and a long overlapping history with humans. In Iraq, archaeological remains of charred seeds have been carbon-dated back 6,000 years. Known as *Methi* in Indian cuisine when grown for the leaf; the seeds have been a culinary staple for more than 3,000 years, imparting a sweet nutty flavor reminiscent of maple syrup. On a warm day you might detect the scent of maple wafting in your garden. In the North it needs full sun. Not at all frost tolerant. As a legume, it brings the benefits of nitrogen fixation to the garden. If not pinched back, the plant will grow to 2'. This seed was requested by our customers: you asked for it, we got it. 75 seeds/g. ② *We're not sure when this seed will arrive. Check our website for availability.*



Feverfew - Organic *Tanacetum parthenium* Perennial to Zone 4, maybe 3. Strongly scented bushy 18" plant with small daisy-like white blooms, merry in bouquets. A tea from the chrysanthemum-like leaves was traditionally used as a relaxant. Chewing regularly on a bitter leaf or two is said to prevent migraines. Sow indoors, set out in average well-drained soil when seedlings have four true leaves. Self-sows. About 5,000 seeds/g. ①

4572 ***A**: 0.1g, $3.10* ***B**: 0.4g, $5.45*
***C**: 2g, $9.75* ***D**: 8g, $25.50*

Garlic Chives *Allium tuberosum* Perennial to Zone 4. Also called Chinese chives or Chinese leeks. Known as *jiu cai* in China. Grows like chives, 1' tall, but has flat strap-like leaves that taste like garlic and can be used as a garlic substitute in salads and sautéed vegetables. White flowers are edible, long-lasting in bouquets and good in dried arrangements. Sow thinly in spring, harvest sparingly till plants are established; after that they are vigorous and self-sowing. Protect in cold areas. Easier than chives to bring indoors for winter. Seed is very short-lived. About 210 seeds/g. ②

4577 ***A**: 0.5g, $2.95* ***B**: 7g, $3.75*
***C**: 28g, $9.50* ***D**: 112g, $23.00*

Horehound *Marrubium vulgare* Perennial to Zone 3. Bushy 2' stand of grey-green woolly leaves make a good border. Horehound candies were once common for soothing coughs and the tea makes a strong remedy for coughs and lung congestion. One of the bitter herbs of Passover. Transplant while seedlings are still small or direct seed into light dry sandy soil. About 950 seeds/g. ③

4580 ***A**: 0.1g, $2.75* ***B**: 0.3g, $3.50*
***C**: 1.2g, $4.95* ***D**: 6g, $12.00*

Hyssop *Hyssopus officinalis* Perennial to Zone 3. Beautiful aromatic border plant that produces spikes of indigo flowers, traditionally used in cough syrups. Interplant with rosemary and lavender for a colorful and fragrant effect. Its pleasantly skunky aroma stimulates alertness and mental clarity. Was used as a strewing herb, thrown on floors to mask odors. Add slightly bitter leaves to salads, soups and stews, or use as an expectorant tea. People with epilepsy and pregnant women avoid use. Dry light or sandy soil. Hardy, but we've had significant losses in harsh winters. About 850 seeds/g. ✿ ②

4582 ***A**: 0.5g, $2.75* ***B**: 4g, $3.95*
***C**: 16g, $8.25* ***D**: 48g, $15.95*

Lady's Mantle *Alchemilla mollis* Perennial to Zone 3. Softly hairy wavy-edged leaves unfold like fans in early spring and form loose 12–18" mounds. Leaves hold rain and dew, sparkling in the early morning light. Alchemists believed the collected dew was the purest water and used it in their preparations; thus its genus name. Bears large loose sprays of tiny greenish-yellow flowers from early summer onward. Makes a good border and ground cover in shady locations. Astringent and regenerative, has a long history as a remedy for women. Excellent for dyeing: leaves make purple with a charcoal cast and flowers add some speckling. Likes average well-drained soil and moisture; tolerates most conditions. Seed is short-lived. Oscillating temperatures aid germination which requires 21–30 days. About 2,600 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

LAVENDER *Lavandula angustifolia*

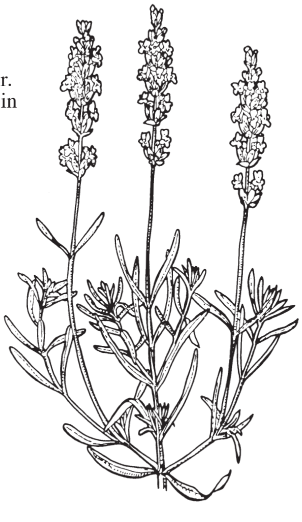
About 1,000 seeds/g. Famous for centuries for its sweet soothing lasting scent. Flowers used dried in sachets, wreaths and arrangements, and as a tea for headache or exhaustion. Hardy perennial reaching 3', woody shrublike plant with grey-green needle-like foliage and lavender flowers growing on long-stemmed spikes. Attracts small pollinating insects and syrphid flies.

Culture: Likes well-drained alkaline sandy soil. Germinates in 21 days at 60–70°.

Lavender Also known as English lavender. Texts claim hardy to Zone 5, but our patch in Zone 3 survived ten straight winters until a particularly hard one. ✿ ④

4583 ***A**: 0.2g, $2.95*
***B**: 1g, $4.95*
***C**: 5g, $9.95*
***D**: 20g, $23.00*

Vicenza Blue Perennial to Zone 5. More compact habit than common lavender with deeper green leaves and a more powerful, less sweet, aroma. 1' plants have bold clustered flower spikes with deep color from mid-July to early September. Flowers the first year without vernalization. Long-day perennial needs full sun. ✿ ②



4586 ***A**: 20 seeds, $3.95*
***B**: 60 seeds, $7.75*
***C**: 300 seeds, $26.00*

Lemongrass *Cymbopogon flexuosus* Annual. Nikos searched for years for this culinary strain of lemongrass, native to Southeast Asia, used in food and medicine there for millennia, and adopted worldwide for the bright lemony flavor it imparts. Coarse grass sets 6–12 harvestable stalks, looking something like pencil leeks, slightly bulbous at the base. Harvest the tough stalks low; the plants will re-grow, though probably only to 3' here in Maine rather than the 6' achieved in the tropics. Use chopped or ground, fresh, dried or frozen, add to soups, sauces and stir-fries, or make into a delicious medicinal tea to aid digestion. Perennial in Zones 9-11, grown as an annual in our climate unless potted up and brought indoors for the winter. Not a great germinator; 40% is considered good. Sow indoors and transplant out 8–12" apart. About 2,000 seeds/g. ③

4587 A: *0.1g, $4.50* **B**: *0.3g, $10.00*
C: *1.2g, $23.00* **D**: *6g, $45.00*

Lemon Balm *Melissa officinalis* Perennial to Zone 4. The Greek word *Melissa* means 'honeybee'; the 2' plant in flower attracts them. Gather its yellow-green scalloped lemony leaves before plants flower. Delicious in salads, as a tea, with fruit, or dried for sachets. Flowers are edible. Essential oil of lemon balm smells fabulous and is highly effective against cold sores, but is very expensive. Steep multiple batches of leaves in olive oil to make an infused oil, one of the many ways to enjoy this relaxing calming comforting uplifting herb all winter. Likes very well-drained fertile soil; wet ground may winterkill it more than cold. However, tends to self-sow in the same years that the roots winterkill. About 1,800 seeds/g. ✿ ②③

4588 A: *0.3g, $2.95* **B**: *3g, $4.50*
C: *15g, $8.15* **D**: *45g, $18.00*

Lemon Mint *Monarda citriodora. Not available in 2024. Try* ***4481*** *Wild Bergamot, or* ***4887*** *Spotted Bee Balm (page 96).*

Lovage *Levisticum officinale* Perennial to Zone 4. An underrated herb with many uses. Leaves have a strong celery taste and can flavor soups, stews and casseroles. Crush seeds and add to bread and pastries; candy stems and roots in sugar syrup. Said to restore the appetite and revive the love of life. Second-year plants are best for drying. Formerly used to mask the bitter herbs in medicinal concoctions. Makes a dramatic 3–6' architectural element in a decorative border. Umbelliferous flowers attract beneficial insects, Likes moist rich deep well-drained soil. About 140 seeds/g. ✿ ②③

4592 A: *0.5g, $2.75* **B**: *4g, $5.25*
C: *16g, $10.50* **D**: *48g, $15.95*

Sweet Marjoram *Origanum majorana* (80-95 days) Annual. 1' plant with grey-green rounded leaves of enchanting sweet fragrance. Cut often to prevent flowering. Use fresh or dried. Adds flavor to soups, stews and stuffings, or make yourself an aromatic tea come winter. Subject to damping off; do not overwater. Likes well-drained dry soil. About 3,300 seeds/g. ②

4615 A: *0.5g, $2.95* **B**: *2g, $5.35*
C: *8g, $7.95* **D**: *32g, $18.00*

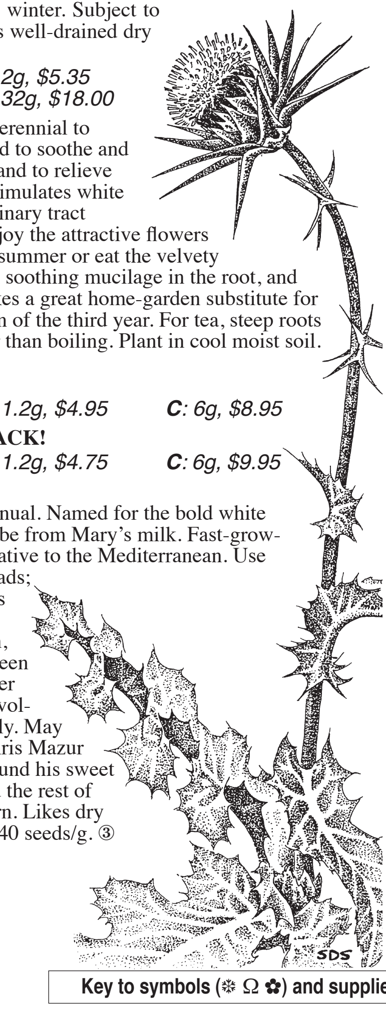
Marshmallow *Althaea officinalis* Perennial to Zone 4. Cousin to the hollyhock, used to soothe and soften irritated skin and membranes and to relieve stuck hacking coughs. Also mildly stimulates white blood cell production and relieves urinary tract infections and prostate problems. Enjoy the attractive flowers of this showy 4–6' plant through the summer or eat the velvety leaves in salads. All mallows contain soothing mucilage in the root, and marshmallow has the most, so it makes a great home-garden substitute for slippery elm. Harvest roots in autumn of the third year. For tea, steep roots in cold water for several hours rather than boiling. Plant in cool moist soil. Will self-sow. About 350 seeds/g.

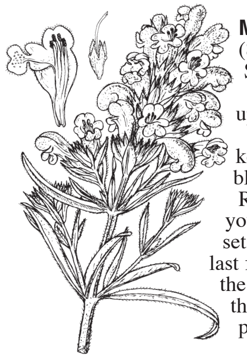
Marshmallow ③
4618 A: *0.4g, $2.85* **B**: *1.2g, $4.95* **C**: *6g, $8.95*

Marshmallow - Organic ① **BACK!**
4619 A: *0.4g, $2.95* **B**: *1.2g, $4.75* **C**: *6g, $9.95*
D: *24g, $22.00*

Milk Thistle *Silybum marianum* Annual. Named for the bold white splashes on its glossy leaves, said to be from Mary's milk. Fast-growing, 3–5', with leaves up to 8x24". Native to the Mediterranean. Use young leaves cooked or in spring salads; remove spines first! Flower stalk puts out large purple thistle flowers that were eaten like artichokes. Silymarin, found in the flowers and seeds, has been used to strengthen and regenerate liver tissue. Will self-sow; pull unwanted volunteers before they get big and prickly. May present a way to outwit raccoons: Chris Mazur of Apple River, IL, planted some around his sweet corn patch, and the raccoons ravaged the rest of his garden, but did not molest his corn. Likes dry soil, very tolerant of drought. About 40 seeds/g. ③

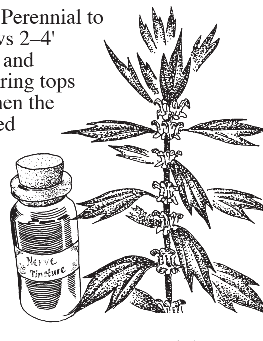
4629 A: *1g, $2.50*
B: *4g, $4.25*
C: *28g, $13.00*
D: *112g, $35.00*





Moldavian Dragon Head *Dracocephalum moldavica* (80 days) Annual. The students at Troy Howard Middle School in Belfast, ME, fell in love right away with this tea and medicine plant from Eurasia. 18" plants send up purple-blue flower spikes that bumblebees love. Dry the tops (leaves and flowers) for a bright lemony tea. It keeps its aroma well when dried. Cutting encourages re-blooms: students get two or three harvests each summer. Remember to let a few plants go to seed in August so you can collect seeds to share! Surface sow in pots and set out after danger of frost; or direct sow 2 weeks before last frost. Needs light to germinate. Grown and packed by the students at Troy Howard! We split the proceeds for this seed with them. Students measure 1/16 teaspoon per packet: approximately 100 seeds. ①

4590 A: *1/16t, approx 100 seeds, $4.00*



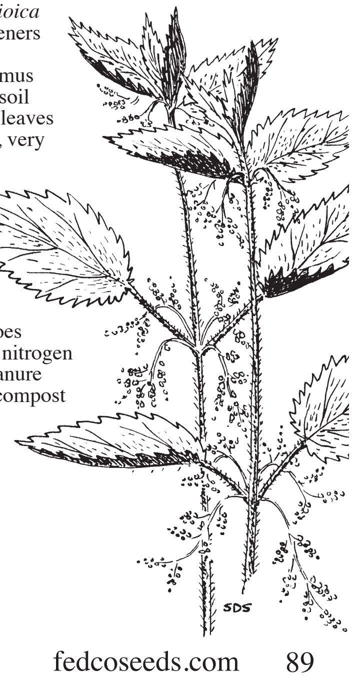
Motherwort - Organic *Leonurus cardiaca* Perennial to Zone 3. This member of the mint family grows 2–4' with dull green leaves having a pungent odor and rather bitter taste. Good bee plant. Pick flowering tops for tea or herbal tincture. Believed to strengthen the heart muscle and relieve nervous tension. Used by women during life transitions. Readily self-sows even in relatively poor soil; pull up unwanted first-year basal rosettes before they put out their spiky flower stalk the second year. About 1,100 seeds/g. ①

4639 A: *0.2g, $3.55*
B: *1g, $6.65*
C: *3g, $15.00*
D: *9g, $32.00*

Hoary Mountain Mint - ECO *Pycnanthemum incanum* Perennial to Zone 3. Native to the Northeast. A culinary herb, excellent cutflower and pollinator fave! Aaron Parker of Edgewood Nursery says, "One of my favorite mountain mints! Has a great flavor—like most mountain mints the flavor is "mintier then mint"—and attracts tons of pollinators. What makes this species stand out to me is that they are less spready than others and the flowers are showier." Sturdy stems with slivery-white aromatic foliage and large purple flowers in late summer in the Northeast. Upright clumping habit, much less likely to take over your garden than true (Mentha) mints. Plants grow 3–4' tall with 3' spread. Sun to partial shade on well-drained soils. Direct sow in early spring as soon as the soil has warmed, pressing into the soil surface; needs light to germinate. Keep the soil lightly moist until germination. Ideal germ temp is 65–70°. ✿ ① **NEW!**

4641 A: *0.05g, $2.95* **B**: *0.2g, $4.95* **C**: *1g, $9.95*

Yellow (White) Mustard Seed *Sinapis alba* (70-85 days) Annual. The variety of mustard most familiar to American palates, but pallid without the addition of turmeric. If you plant a scant dozen, they should yield enough to make at least a couple batches of prepared mustard. Or alternately, toast the seeds in a fry pan until they pop, and then grind into spicy mixtures. As easy to grow as the leafy mustards. Harvest seeds as soon as pods begin to turn tan. Pods open once the seeds are dry. Spice up those cold winter nights! *Cannot ship sizes C and D to the Willamette Valley.* About 145 seeds/g. ③ *We're not sure when this seed will arrive at our warehouse—check our website for availability.*



Stinging Nettle - Organic *Urtica dioica* Perennial to Zone 2. Biodynamic gardeners use nettles to increase the potency of neighboring herbs, and to stimulate humus formation. An indicator of very fertile soil where it volunteers. Young shoots and leaves are delicious steamed as spring greens, very high in minerals and protein. Dried, the leaves make a great hair rinse, are good for steeping in a bath, or for chicken feed. Choose your spot carefully; the spreading rhizomes as well as the leaves can sting, and the plants can take over any patch of annuals. Cooking removes the sting. (Drying does not!) Plant in damp rich soil with high nitrogen content; especially likes composted manure piles or the leaky side of your lushest compost bin. Chill the seed before sowing to improve germination. Takes 10–14 days to come up and grows 3–6'. About 6,000 seeds/g. ①

4644 A: *0.2g, $2.95*
B: *0.6g, $4.75*
C: *2.4g, $9.75*

OREGANO *Origanum* spp.

The oregano genus has more than 50 species. The ancient Greeks gave it its name, meaning 'joy of the mountains.' These fragrant plants grow on steep rocky alkaline hills, filling Mediterranean mountainsides with their joyful cheer and intense scent. Not only has oregano flavored foods for thousands of years, but it also has medicinal uses, from relieving rheumatism and asthma to decongesting stuffy head colds.

Culture: Likes sun and light well-drained alkaline soil. Will lose potency if soil is overfed. Harvest when it is beginning to flower.

Greek Oregano *O. heracleoticum* Perennial to Zone 4, but survives some winters in Zone 3. This is the true culinary herb for Greek and Italian cuisine. Low-growing perennial with fragrant dull green and purple leaves and white flowers. If given a favorable square foot in full sun, it will fully inhabit the area attracting a proliferation of pollinators. Start indoors in spring for best results. About 2,000 seeds/g. ②④

4648 ***A***: *0.2g, $2.95* ***B***: *1g, $4.95* ***C***: *5g, $8.50*
D: *20g, $23.50*

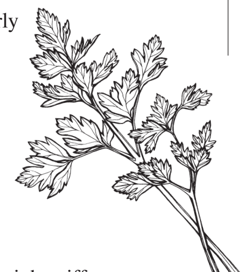
Zaatar Oregano - Organic *O. syriacum* Annual. This bushy tender oregano carries a bit of zing and is a necessary ingredient in the condiment zaatar. Mix with sumac, toasted sesame seeds, salt and sometimes a few other herbs to make the sprightly topping so essential to Middle Eastern cuisine. For most aromatic flavor, harvest before its small white flowers appear. Start seeds indoors or sow them directly in the ground just prior to the last spring frost. About 4,300 seeds/g. ③

4649 ***A***: *50 seeds, $3.70* ***B***: *250 seeds, $6.50*
C: *1,000 seeds, $11.00*

PARSLEY *Petroselinum crispum*

About 11,000 seeds/oz. Hardy annual in the North. A shining star of Jason Kafka's wholesale program. He grows Double Curled, Krausa and Plain Leaf, moving a few hundred bunches per week and says that if you have the market, these may bring more $ per row foot than any other crop. When these biennials bolt, he gets a bonus by using the umbels as filler for flower bouquets.

Culture: Very hardy. Parsley seed is short-lived; test old seed before sowing. Very slow to germinate (up to 30 days). Soaking seed 8–12 hours will hasten germination. Do not allow soil surface to dry out.



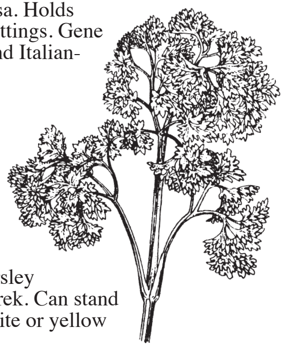
Gigante d'Italia (70 days) We were wowed by its early seedling vigor and rich sweet flavor. Giant flat leaves make picking and washing super easy. Flat-leaved heirloom hails from northern Italy and grows to 1'. ❆

Gigante d'Italia ②

3158 ***A***: *1/16oz, $3.00* ***B***: *1/8oz, $3.50*
C: *1/2oz, $4.25* ***D***: *1oz, $5.75*
E: *4oz, $11.00*

Gigante d'Italia - Organic ④

3159 ***A***: *1/16oz, $3.50* ***B***: *1/8oz, $4.15*
C: *1/2oz, $5.35*



Double Curled (75 days) Double-curled with long upright stiff stems that hold foliage up out of the dirt better than Krausa. Holds color well all season, tolerates heat and repeated cuttings. Gene and Joanna plant huge amounts for parsley pesto and Italian-style salsa verde. ❆ ②③④

3166 ***A***: *1/16oz, $2.50* ***B***: *1/8oz, $3.00*
C: *1/2oz, $4.00* ***D***: *1oz, $5.00*
E: *4oz, $8.75*

Krausa - Organic (75 days) Stems so sweet they taste almost like a miniature celery: thick, solid, crunchy, yummy. Dense triple-curled medium-green parsley holds its color without developing white or brown spots. Taller, thicker stems than Double Curled. "Never before had a parsley with such delicious stems," raves trialer Donna Dyrek. Can stand the heat yet still beautiful and juicy in October. White or yellow certified-organic coating. ❆ ④

3169 ***A***: *1/32oz, $4.75* ***B***: *1/8oz, $8.50*
C: *1/2oz, $24.00* ***D***: *1oz, $42.00*

Plain Leaf - Organic (78 days) Smooth and shiny large wide dark green flat leaves. Upright with vigorous growth. ❆ ③

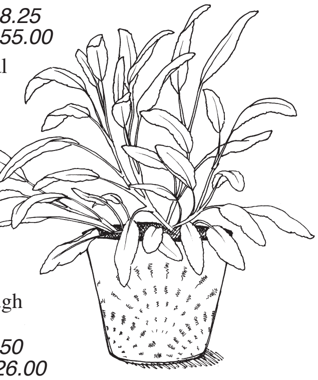
3170 ***A***: *1/16oz, $3.00* ***B***: *1/8oz, $4.25* ***C***: *1/2oz, $6.75*
D: *1oz, $10.00* ***E***: *4oz, $23.00* ***K***: *1#, $66.00*

Parsley Root: see p. 63.

Pennyroyal *Mentha pulegium* Perennial to Zone 4-5. Native to Europe, across the Mediterranean into Persia. Hardy aromatic ground cover of the mint genus notorious for its insect-repellent properties: can be used to ward off mosquitoes and to repel fleas from pets. Makes a potent tea. Pennyroyal's distilled oil can be toxic, but the tea rinse is safe for external use. *Caution:* Pregnant women should not use. Plant 6" apart to make a dense mat. The plants creep with only the lavender flower stalks rising above the ground. Likes rich well-drained soil with good moisture. Mulch for winter protection. About 12,000 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

Rosemary - Organic *Rosmarinus officinalis* From the Latin *ros marinus* meaning 'dew of the sea,' a reference to its native habitat, the Mediterranean coasts. Beloved tender perennial (to Zone 8) growing to 3–4'. Cannot withstand temperatures below 17°, may be overwintered indoors if kept cool and moist. Try near a cool basement window and keep misted. Otherwise, grow it as an annual and dry the leaves for winter cooking. Dark grey-green needle-like leaves impart a robust resiny flavor. Rosemary clippings are said to repel slugs. Blossoms range from deep blue to pale pink. Likes dry alkaline soil; peat pots are too acidic. Not a good germinator—30% is average. About 575 seeds/g. ③

4657 ***A***: *0.2g, $3.75* ***B***: *0.6g, $8.25*
C: *1.8g, $18.00* ***D***: *7.2g, $55.00*



Broadleaf Sage *Salvia officinalis* Perennial to Zone 4. Grows up to 3', with fuzzy grey-green oblong leaves and blue flowers. Used fresh or dried. Tasty in stuffing blends, with eggs, cheese, poultry, pork. Sage tea dries up mothers' milk and helps reduce hot flashes. Likes well-drained rich soil with good nitrogen content. Grows woody with age; replace every 3 years or so. Only one of our five plants survived the harsh winter of 2003-4. Did not mind the tough 2014-15 winter. About 115 seeds/g. ✿ ②

4664 ***A***: *0.5g, $2.00* ***B***: *5g, $6.50*
C: *15g, $9.75* ***D***: *60g, $26.00*

Summer Savory *Satureja hortensis* (70 days) Annual grows to 1 1/2' with narrow dark green leaves and lavender flowers. Cut often during growing season, before blossoms appear. Sow after last frost in well-drained soil next to beans, their complement in the kitchen as well. Use with dry or green beans, rice, stuffings, or in onion soup. Left to bloom, it is beautiful in fall with dark purple foliage and lavender flowers. About 1,100 seeds/g. ② *We're not sure when this seed crop will arrive. Check our website for availability.*

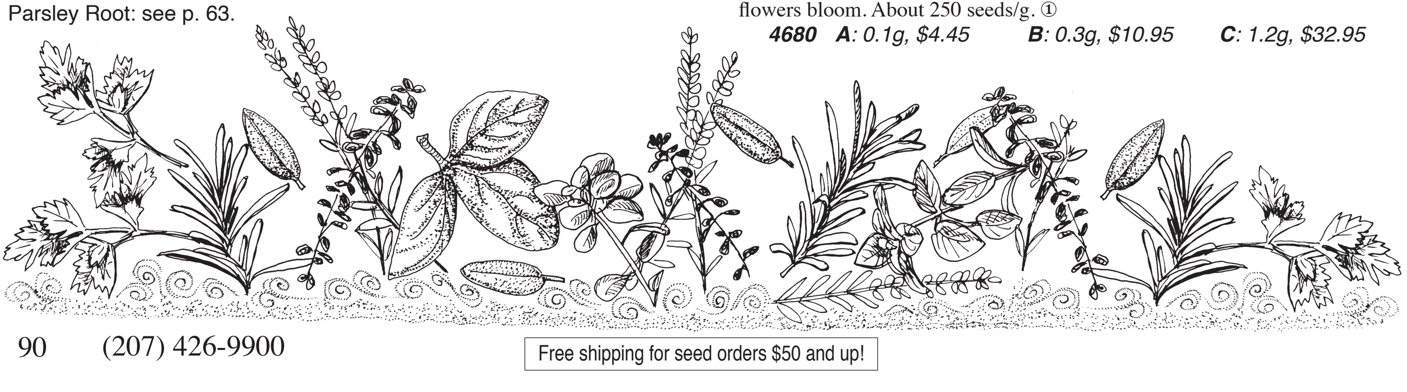
Winter Savory *S. montana* Perennial to Zone 3. Leaves shinier and thicker, stronger and more pungent than summer savory. Used to flavor dry beans or sauerkraut, winter soups and stews. Hardy bushy plants grow 6–12", thriving in dry poor soil. Start indoors 8–10 weeks before last spring frost date; transplant after danger of frost. Makes an attractive border with its tiny green leaves and light lilac flowers. Also used as a tea to calm indigestion or as a gargle for sore throat. About 2,000 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

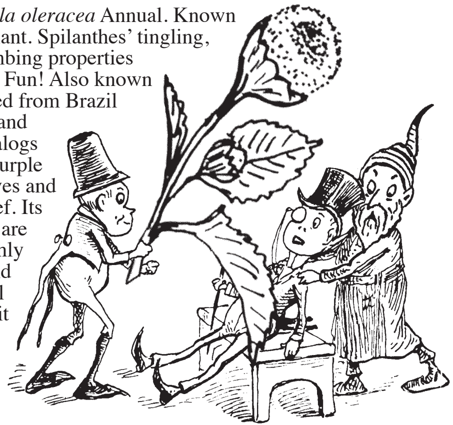
Skullcap - Organic *Scutellaria lateriflora* Perennial to Zone 4. Native spreading 1–2' perennial, also known as Virginia Skullcap, needs moist rich soil and likes partial shade. Herbalists use it as a headache remedy, great for insomnia and both calms and strengthens the nervous system. Flowering tops of skullcap are used in daily teas as well as formulas for chronic conditions. Sometimes called Mad-dog because the tea was once used as a folk remedy for rabies. Enjoy its numerous small blue flowers from July through September or put the leaves in a pillow to induce restful sleep. About 500 seeds/g. ①

4679 ***A***: *0.05g, $2.85* ***B***: *0.2g, $7.85*
C: *0.8g, $25.95* ***D***: *2.4g, $43.00*

Baikal Skullcap - ECO *S. baicalensis* Perennial to Zone 4. Beautiful little perennial with myriad small violet monkshood-shaped blooms on a 1–2' subshrub. Looks like a shiny rosemary with slender ovate leaves. A definite candidate for the rock garden, it tolerates drought and grows best in light well-drained soil. Important as the Chinese herb *huang qin*, 3–4 year roots are dried and used as a bitter cooling sedative that lowers fever, blood pressure and cholesterol levels while stimulating the liver; also used to stop bleeding. To encourage the roots' optimal medicinal powers, pinch buds and don't let flowers bloom. About 250 seeds/g. ①

4680 ***A***: *0.1g, $4.45* ***B***: *0.3g, $10.95* ***C***: *1.2g, $32.95*





Spilanthes - Organic *Acmella oleracea* Annual. Known to herbalists as the toothache plant. Spilanthes' tingling, saliva-inducing and mouth-numbing properties appear rapidly and last a while. Fun! Also known as Salad Cress, it was introduced from Brazil to North America in the 1860s and listed as Para Cress in seed catalogs a century ago. Use its bronzy-purple leaves in salad or chew the leaves and flowers for temporary pain relief. Its immune-stimulating properties are giving it a wider audience. Highly frost-sensitive. Used as a ground cover in the south, it adds novel beauty with its low growth habit and its cute eyeball-like rayless yellow flowers with red-orange centers. Makes a colorful border planting in fertile moist soil. About 3,000 seeds/g. ①

4683 ***A**: 0.02g, $2.75* ***B**: 0.08g, $5.75* ***C**: 0.32g, $13.00*

Stevia *S. rebaudiana* (100-120 days) Treat as an annual or bring indoors for winter. As sweet as it gets, stevia is several hundred times sweeter than sugar, but without the calories. It is used fresh, dried, powdered or in a liquid as a sugar substitute. Stevia grows into a bushy 2' plant with serrated leaves and white flowers in late summer. Pinch it back for greater bushiness and higher yields. An erratic and finicky germinator, the seed needs light. Likes heat so should not be transplanted outdoors until nights stay above 50°. Work compost into well-drained soil or raised beds. Ironically, it retards plaque and inhibits tooth decay. Seed has short longevity; order only a 1-year supply. About 3,100 seeds/g. ③

4684 ***A**: 25 seeds, $3.95* ***B**: 100 seeds, $9.95*
***C**: 500 seeds, $34.50*

Topas St Johnswort *Hypericum perforatum* Perennial to Zone 3. Pretty yellow flower of fields and meadows turns tinctures and oils deep red. Used as tea, tincture or infused oil for many nerve disorders, from neuralgia and sciatica to mild depression, seasonal affective disorder and chronic exhaustion. The infused oil is also cooling to sunburn and cuts, soothing to strained joints and muscles. Frequent use can cause photosensitivity. Compared to generic St Johnswort, Topas is an improved strain for commercial production, much earlier (blossomed first year from seed), more floriferous with a higher content of hypericin. Seedlings grow slowly, top out at 1–3'. Prefers well-drained dry soil; very drought tolerant but essential oil levels increase with some moisture. *We cannot ship to North Dakota or California where it is considered a noxious weed*. About 7,000 seeds/g. ③

4686 ***A**: 0.1g, $2.85* ***B**: 0.5g, $5.75* ***C**: 2g, $10.00*
***D**: 8g, $22.00*

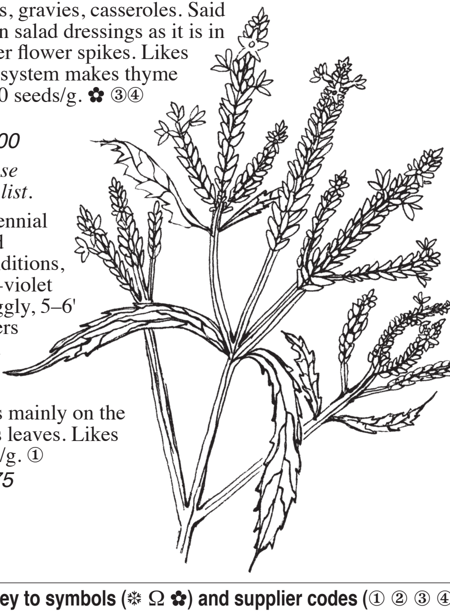
Mexican Tarragon *Tagetes lucida* (80 days) Annual. Native to Guatemala and Mexico; also known as Sweet Mace, Mexican Mint Marigold, Winter Tarragon and Cloud Plant. Aromatic leaves taste like French tarragon, but with a slightly stronger anise flavor. Plants grow to 16–20" and are topped with delicate edible yellow flowers that bloom all summer and attract pollinators. Leaves and blossoms elevate drinks, savory dishes, salads and sweets! Easy to grow, tolerating heat and drought without getting bitter. Sow indoors 6–8 weeks before last frost. Transplant after danger of frost, 8–12" apart in rows 18" apart. ③ **NEW!**

4685 ***A**: 0.5g, $2.95* ***B**: 2g, $5.85*
***C**: 7g, $12.45* ***D**: 14g, $19.95*

German Thyme *Thymus vulgaris* Perennial to Zone 4. Sprawling 10–12" mat-forming herb brings depth of flavor to soups, gravies, casseroles. Said to calm the nerves, soothe headaches. As good in salad dressings as it is in sore-throat remedies. Bees love its short lavender flower spikes. Likes well-drained light dry alkaline soil. Its fine root system makes thyme difficult to move around the garden. About 2,900 seeds/g. ✿ ③④

4687 ***A**: 0.2g, $2.95* ***B**: 3g, $6.25*
***C**: 15g, $11.10* ***D**: 45g, $22.00*

Valerian *Valeriana officinalis. Dropping because Valerian was added to Maine's invasive species list.*



Blue Vervain - Organic *Verbena hastata* Perennial to Zone 3. Grows naturally in moist thickets and meadows and will do well in similar garden conditions, sending up many terminal spikes of bristly blue-violet flower clusters the entire season. Although scraggly, 5–6' plants blend very well with many kinds of flowers by stretching its spikes amongst them. Herbalist Gail Edwards finds it "a powerful spiritual presence" and nervous system tonic. Similar to *V. officinalis*, but more alterative, vervain acts mainly on the liver and lungs. Its roots are more active than its leaves. Likes light well-drained moist soil. About 2,500 seeds/g. ①

4692 ***A**: 0.1g, $2.95* ***B**: 0.4g, $5.75*

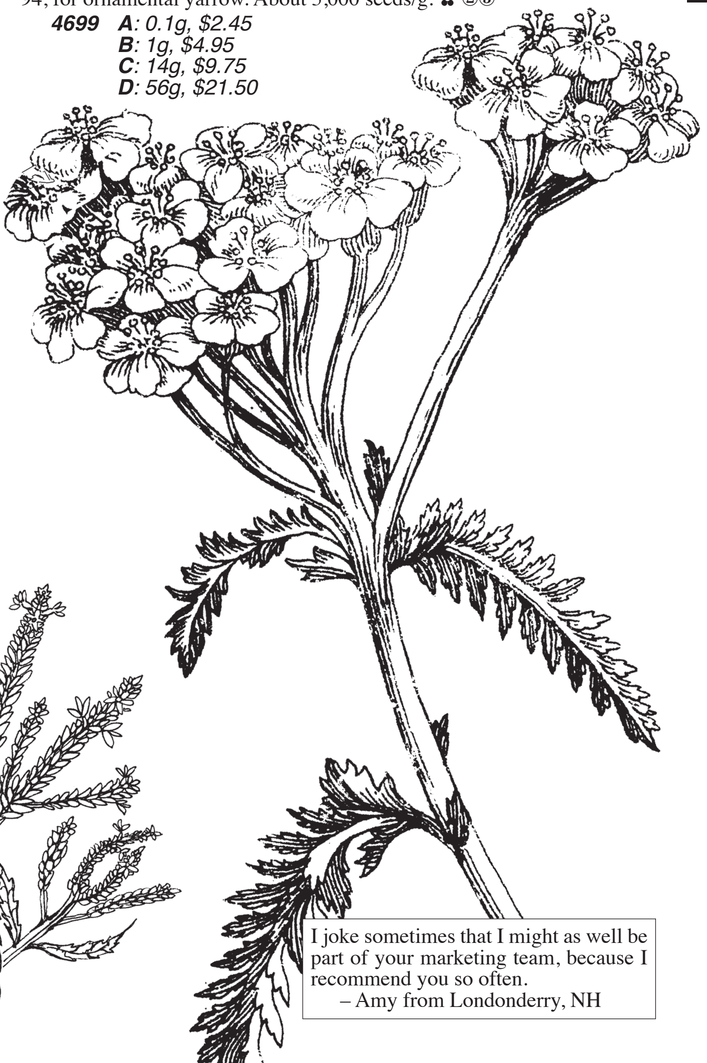
Wild Lettuce - ECO *Lactuca virosa* (60 days) Biennial to Zone 4; readily grows as a spring-sown annual. Wild lettuce, also known as bitter lettuce, is grown for its medicinal benefits, which have been known since the time of Hippocrates. This is the wild species native to Europe. Young leaves are edible, and the plant can be milked for its medicinal latex. Though called Opium Lettuce, the effects are less euphoric and more sedative, perhaps useful for taking the edge off—perfect for these stressful times! The ancient Egyptians used the plant for pain relief. While strolling through the rich smorgasbord of plants at Edgewood Nursery, Nikos asked Aaron if he had ever grown this plant. He gestured toward what looked like design elements of bolting lettuce. Score! The seeds were just coming into readiness. Grows to 6' with rangy yellow flowers. Sow outside in cool temps; heat will inhibit germination, which may take up to 3 weeks. About 1,200 seeds/g. ①

4695 ***A**: 0.1g, $4.75* ***B**: 0.2g, $8.95* ***C**: 0.8g, $16.00*

Sweet Woodruff *Galium odoratum* Perennial to Zone 5. A lovely ground cover for shaded areas, its whorls of pointed leaves covered with clusters of tiny snowy-white spring flowers. Vanilla-scented leaves are essential in Maybowl, a traditional German punch. In these times of high vanilla prices, try steeping leaves in brandy for an acceptable vanilla-extract substitute. Said to be helpful for migraine, nervous conditions and stomach pain. Drying increases its clover fragrance. A classic strewing herb in the Middle Ages used to purify the church, dining hall and bedrooms with its coumarin-rich fragrance. Sow outdoors in a woodland site or in a heavy layer of well-rotted leaf mulch. Can be very slow to germinate—up to 200 days—and then may not be visible right away because the plants grow by underground rhizomes. Be patient—woodruff will appear the following spring and grow 6–8" tall and spread. About 160 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check our website for availability.*

White Yarrow *Achillea millefolium* Perennial to Zone 2. Flat-topped white flowers bloom June–August with an odd alluring scent that attracts bees, butterflies and beneficials. One of the most popular herbs for colds and flu. A hot cup of tea from leaves and flowers induces a sweat to throw off heat and toxins. Also used to stanch internal and external bleeding. Avoid large doses during pregnancy. Grows 1–2', spreads slowly, preferring lean soil. Rich garden soil may produce lush 3' plants that need staking. See Achillea, page 94, for ornamental yarrow. About 5,000 seeds/g. ✿ ②③

4699 ***A**: 0.1g, $2.45*
***B**: 1g, $4.95*
***C**: 14g, $9.75*
***D**: 56g, $21.50*



I joke sometimes that I might as well be part of your marketing team, because I recommend you so often.
– Amy from Londonderry, NH

Flower Planting Guide
2024

Name	page	item#	*Botanical Name*	ABP	height	uses	season	sow	start	temp	days	notes
Achillea (Yarrow)	94	4803ff	*Achillea* spp.	P	18-24"	BDC	ES-F	DS DF TP	8-10	C	10–14	Lt
Ageratum	94	4811ff	*Ageratum houstonianum*	A	24"	BCD	ES-F	TP	6-8	W	4–6	◗ S
Alyssum	94	4821ff	*Lobularia maritima*	A	2-4"	FBW	ES-F*	DS TP	5-6	55-70	8–14	◗ S
Amaranth	94	4831ff	*Amaranthus* spp.	A	3-6'	CNDE	MS-F	TP DS	6-7	W	10–14	◗ Lt
Aster, New York	95	√ *web*	*Symphyotrichum novi-belgii*	P	36-48"	B	LS-F*	TP	6-8	M	14–36	Ch2w
Aster, China	95	4852ff	*Callistephus chinensis*	A	12-30"	BC	ES-F	TP	12-14	W	10–21	◗
Bachelor's Button	95	4868ff	*Centaurea cyanus*	A	24-36"	BC	ES-F*	DW TP	8-9	C	7–14	◗ Cv
Balloon Flower	95	4881	*Platycodon grandiflorus*	P	30-42"	CB	MS-LS	TP	6-8	M	15–30	S
Bee Balm	96	4886ff	*Monarda* spp.	P	30"	BCD	MS-LS	DW TP	8-10	C/M	14–21	◗ Lt
Begonia	96	4889	*Begonia* x *tuberhybrida*	TP/A	8-12"	BW	ES-LS	TP	12-14	W	14–28	●
Bells of Ireland	96	4896	*Moluccella laevis*	A	30"	DBN	MS-F	TP	6-8	C	12–21	◗ S, Ch5d50°
Bouncing Bet	96	5920	*Saponaria officinalis*	P	1-3'	BGF	MS	TP	8-10	M	14–28	◗ St
Broom Corn	106	5437	*Sorghum bicolor*	A	7-11'	D	LS-F	DW		W	7–10	
Bupleurum	96	4903	*Bupleurum rotundifolium*	A	2'	DCN	ES-F	TP	8-10	C	14–21	◗
Butterfly Weed	96	4906	*Asclepias tuberosa*	P	18-30"	BCN	ES-LS	DS DF		W	14–28	Ch4w34-40°
Calendula	96	4911ff	*Calendula officinalis*	A	18-24"	BDCE	ES-F*	DS TP DF	6-8	C	4–10	Cv
Campanula	97	4930	*Campanula carpatica*	P	6-8"	BGW	ES-F	DW TP	8-10	M	20–30	◗
Canary Creeper	97	4932	*Tropaeolum peregrinum*	A	8'	BV	LS-F	DW TP	6-8	C	7–14	◗ Cv
Catmint, Persian	97	4937	*Nepeta mussinii*	P	12"	BG	Sp-MS	TP DS DF	6-8	C	10–14	
Celosia	97	4950	*Celosia argentea spicata*	A	3-6'	DCNB	LS	TP	8-10	W	10–14	
Cerinthe	97	√ *web*	*Cerinthe major purpurescens*	A	12-18"	B	MS-F*	TP DW	6-8	W	7–14	
Chinese Forget-Me-Not	97	4965	*Cynoglossum amabile*	A	18"	B	MS-LS	DW TP	6	M	5–10	
Chinese Lantern	97	√ *web*	*Physalis alkekengi*	P	24"	DNC	MS-F	TP DF	8	W	14–21	◗ S, invasive
Cleome	97	4988ff	*Cleome hassleriana*	A	48"	BN	ES-LS	TP DW	4-6	W	7–14	Ch, S
Coleus	97	4992	*Coleus scutellarioides*	TP/A	10-12"	WBN	MS-F	TP	8-10	M	10–14	● Lt
Columbine	97	√ *web*	*Aquilegia* spp.	P	18-30"	B	Sp-ES	TP DS	6-8	W	14–28	● Lt,Ch3-4w
Coneflower, Prairie	97	5007	*Ratibida columnifera*	P	1-3'	B N	MS-LS	TP	6-8	W	7–42	Ch1w
Coreopsis	97	5012	*Coreopsis grandiflora*	P	18"	BC	ES-F	TP	8-10	C/M	7–21	◗Lt
Cosmos	98	5017ff	*Cosmos bipinnatus*	SSA	3-5'	BCS	MS-F	DW TP	2-4	W	7–10	Lt
Cosmos, Yellow	98	5039	*C. sulphureus*	A	2-3'	BC	MS-F	DW TP	2-4	W	7–10	
Daisy	98	5047ff	*Leucanthemum* x *superbum*	P	36"	BC	ES-MS	TP	6-8	W	7–14	
Delphinium	98	√ *web*	*Delphinium* x *cultorum*	P	3-6'	BCD	MS-LS	TP	10	M/W	14–21	Ch2-4w
Dianthus (Carnation)	98	5063ff	*Dianthus* spp.	A	12-20"	BCF	MS-LS	TP	8-10	M	7–14	
Drumstick Flower	99	√ *web*	*Craspedia globosa*	TP/A	1-3'	CDB	MS-LS	TP, DS	6-8	M	10–30	
Dyer's Coreopsis	110	5904	*Coreopsis tinctoria*	SSA	30"	CB	MS-F	DS TP DF	6-8	C	4–10	S, rugged
Echinacea	88	4547	*Echinacea purpurea*	P	1-3'	BC	MS-LS	TP DW	8-10	W	10–21	◗
Eucalyptus	99	5075	*Eucalyptus cinerea*	TP/A	2-3'	CD	LS-F	TP	10-12	M	14-21	
Flax, Blue	99	5079	*Linum perenne lewisii*	P	9-12"	B	ES-LS	DS TP DF	6-8	C	21–28	◗
Forget-Me-Not	99	5091	*Myosotis sylvatica*	B,P	6-12"	BCG	Sp-ES	DS	8-10	M	8–30	
Four O'Clock	99	5095	*Mirabilis jalapa*	A	24-36"	BF	ES-LS	TP DW	6-8	W	5–10	
Gaillardia, perennial	99	5096	*Gaillardia aristata*	P	24-36"	BC	MS-F	TP DW	6-8	W	14–21	Lt
Gaillardia, annual	99	5098	*Gaillardia pulchella*	A	1-3'	BC	MS-F	TP	4-6	W	7–20	Lt
Gazania	99	5100	*Gazania rigens*	A	8-10"	BW	MS-F	TP	6-8	W	12	Lt
Globe Amaranth	99	5102ff	*Gomphrena globosa*	A	2'	BD	MS-F*	TP	8-12	M	7–30	Dk, Ch5w
Godetia	100	5111	*Clarkia amoena*	A	20-30"	BC	MS-LS	TP	4	C/M	7–14	
Helen's Flower	100	5119	*Helenium autumnale*	P	4-5'	BC	LS-F	TP	6-8	M	14–21	
Heliopsis	100	5113	*Heliopsis scabra*	P	3-6'	BCS	MS-F	TP DW	10-12	M	14–21	
Heliotrope	100	5116	*Heliotropium arborescens*	TP/A	14-18"	FWBC	MS-F	TP	6-8	W	21–28	◗
Hibiscus	100	5120	*Hibiscus moscheutos*	P	2-3'	BN	LS-F	TP	8	W	10–30	PP
Hollyhock	100	5122ff	*Alcea rosea*	SSB	4-8'	BS	MS-LS	TP DF	8-9	WM	7–21	St
Honesty (Silver Dollar)	100	5132	*Lunaria annua*	B	3'	DN	LS-F	DS TP DF	6	M	14–21	◗
Impatiens	100	5142	*Impatiens walleriana*	TP/A	8-14"	WB	ES-F	TP	10	W	7–21	● Lt
Indigo	110	5911	*Persicaria tinctoria*	A	1-2'	dye	MS-F	TP	6-8	W	20–60	

ff = and following

Key

ABP: A=annual, **B**=biennial, **P**=perennial, **SS**=self-sowing, **TP/A**=tender perennial grown as annual.

height: typical height at maturity

uses: B=beds and borders, **C**=cutting, **D**=drying, **dye**=dye plant, **E**=edible, **F**=fragrance, **G**=ground cover, **N**=novel accent, **S**=screen, **V**=vining and climbing, **W**=windowbox, container

season: peak bloom time: **Sp**=spring, **ES**=early summer, **MS**=midsummer, **LS**=late summer, **F**=fall until frost, **F***=fall after frost

sow: DS=direct sow in spring ASAP, **DW**=direct sow when soil has warmed or after all danger of frost, **TP**=transplant, **DF**=direct sow in fall

start: suggested number of weeks before transplanting

temp: suggested soil temperatures for good germination: **C**=cool, 60-65˚, **M**=moderate, 65-70˚, **W**=warm, 70-85˚

days: number of days to seedling emergence

notes: ◗=can grow in partial shade, ●=can grow in full shade or part shade. (The rest need sun.) **S**=surface sow, **Cv**=cover seed, **PP**=use peat pots, **Lt**=needs light to germinate, **Dk**=needs darkness to germinate, **Sk**=soak seed 12-24hrs, **Sc**=scarify seed with sandpaper or emery board, **St**=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer, **Ch**=chill seed, sometimes specifies duration (d=days, w=weeks) and temperature

Name	page	item#	*Botanical Name*	ABP	height	uses	season	sow	start	temp	days	notes
Jacob's Ladder	100	5144	*Polemonium caeruleum*	P	1'	B	ES	TP	8-10	M	20–25	◗
Job's Tears	100	√ *web*	*Coix lacryma-jobi*	A	24-36"	DN	F	TP	6-8	C	7–14	◗ S
Joe Pye Weed	101	5150	*Eutrochium purpureum*	P	5-9'	BNC	LS-F	DS DF		M	14–21	S, St
Johnny-Jump-Up	101	5152	*Viola tricolor*	SSP	4-6"	EB	Sp-F*	DS DF		M	12–14	◗
Kiss-Me-over-the-Grdn	101	5154	*Polygonum orientale*	A	6-7'	NSB	MS-F	DS DF TP	4-6	W	14–20	Cv, St
Laceflower	101	5157	*Orlaya grandiflora*	A	2-3'	BCD	MS-F	DW TP	4-5	M	12–16	
Larkspur	101	5160ff	*Consolida ajacis*	A	24-36"	BCD	ES-F*	DS TP DF	6-8	C	14–28	◗ Cv, Ch1w
Lavatera	101	√ *web*	*Lavatera trimestris*	A	20-36"	BC	MS-F	DS TP	6-8	M	14–21	◗ Cv
Lavender	88	4583ff	*Lavandula angustifolia*	P	2-3'	BCDF	MS-F	TP	8-10	W	14–28	St, Lt
Lobelia	101	√ *web*	*Lobelia pendula*	TP/A	6-8"	BW	ES-F	TP	8-10	M	14–20	◗ S, Lt
Love-in-a-Mist	101	5184ff	*Nigella* spp.	A	15-24"	BD	MS-F	DS TP	6	M	10–14	
Love-Lies-Bleeding	94	4831	*Amaranthus caudatus*	A	24-48"	BNDE	MS-F	TP	5-6	W	7–10	PP
Lupine	101	5195ff	*Lupinus polyphyllus*	P	36"	B	ES	DS TP DF	6-8	C/M	14–60	◗ Sk, PP
Madder	110	5914	*Rubia tinctorum*	P	3-4'	dye	F	TP DW	6-8	M	7–21	
Maltese Cross	101	5203	*Lychnis chalcedonica*	P	28-40"	BC	MS	TP	8-10	M	7–14	◗
Marigold	102	5211ff	*Tagetes* spp.	A	8-30"	BCW	MS-F	TP DW	3	W	5–8	Dk
Mignonette	102	5255	*Reseda odorata*	A	10-15"	F	ES-LS	DW		M	10–14	◗ S, Lt
Milkweed	102	5256	*Asclepias syriaca*	P	3-5'	BEF	MS-LS	DS TP	3-4	M	7-14	St
Millet, Foxtail	102	5257	*Setaria italica*	A	3-5'	BCDN	MS-LS	DW		M/W	10–21	S
Millet, Purple Majesty	102	5259	*Pennisetum glaucum*	A	3-5'	BCN	LS	TP	2-3	W	5-10	◗
Morning Glory	103	5271ff	*Ipomoea* spp.	A	8-12'	VS	ES-F	DW TP	3	W	10–21	Sc, Sk, PP
Morning Glory, Bush	103	√ *web*	*Convolvulus tricolor*	A	12-18"	BW	ES-LS	DW TP	3	W	10-21	
Nasturtium	103	5280ff	*Tropaeolum* spp.	A	12-16"	BEWC	ES-F	DW TP	3	M	10–14	Cv
Nicotiana, Only Lonely	104	5300	*Nicotiana sylvestris*	A	4-6'	FN	MS-F	DS TP	6-8	W	7–14	Lt
Nicotiana, Lime Light	104	5301	*N. alata*	A	3'	BCN	ES-F	TP	6-8	W	10-14	◗ S
Pansy	104	5305ff	*Viola* spp.	A	6-12"	BCW	Sp-ES	TP DF?	8-9	C	12–21	◗ Dk
Petunia	104	5321ff	*Petunia* x *hybrida*	A	4-6"	WBG	ES-F	TP	8	W	7–14	Lt
Phacelia	104	5330ff	*Phacelia tanacetifolia*	A	18-30"	B	MS-F	DS		C	7–12	Ch, S
Phlox, annual	104	5335	*Phlox drummondii*	A	6-8"	BC	ES-F*	TP DS	8	C	7–14	◗
Phlox, perennial	104	√ *web*	*P. paniculata*	P	36"	BC	LS-F	TP DF	10-12	C	21–30	◗ St
Pincushion Flower	104	5341	*Scabiosa* spp.	A	36"	BC	MS-F*	TP DW	4-5	M	14–21	Ch1w
Poppy, Oriental		N/A	*Papaver orientale*	P	16"	BND	Sp-ES	DS			7–14	Lt
Poppy, annual	105	5350ff	*Papaver* spp.	SSA	24-48"	BCND	MS-LS	DF DS			14–21	
Poppy, California	105	5382ff	*Eschscholzia californica*	A	8-12"	B	MS-LS	DS			14–21	
Queen Anne's Lace	105	5385	*Daucus carota*	B/A	36-50"	BC	MS-F	DS TP	4-5	C	12-21	
Rudbeckia, perennial	105	5393	*Rudbeckia fulgida*	P	24"	BC	MS-LS	TP	6-8	W	7–21	Lt
Rudbeckia, annual	105	5395ff	*R. hirta*	A	24-36"	BCN	ES-LS	TP DF?	6-10	W	14–21	
Salvia	106	5406ff	*Salvia* spp.	TP/A	12-18"	BCD	MS-F	TP	10-12	M	14–21	S
Sea Oats	106	5423	*Chasmanthium latifolium*	P	2-5'	CD	LS-F	DW DF		M	7-21	
Snakeroot	106	5424	*Ageratina altissima*	P	2-4'	BCG	ES-F*	DS DF		M	14-28	Sun or ●, St
Snapdragon	106	5430ff	*Antirrhinum majus*	A	30-36"	BC	MS-F*	TP	8-10	C/M	7–14	◗ Ch2w, Lt
Statice	106	5464	*Limonium sinuatum*	A	24-30"	DCB	MS-F	TP	8-9	M/W	7–14	S
Stock	106	5475	*Matthiola incana*	A	12-18"	BC	ES-F*	DS TP	6-8	M	7–14	S
Strawflower	106	5483ff	*Xerochrysum bracteatum*	A	14-40"	DBC	MS-F	TP	7-8	W	7–14	Lt, S
Sunflower	107	5500ff	*Helianthus* spp.	SSA	2-12'	CNS	LS-F	DW TP	3-4	M/W	7–14	
Sweet Annie	108	5603	*Artemisia annua*	SSA	36-60"	FD	LS-F	DF TP	6-8	C	10–21	◗ Lt, St
Sweet Pea, perennial	108	5611	*Lathyrus latifolius*	P	5-6'	CSV	MS-LS	DS		C	21–28	Sk, Cv
Sweet Pea, annual	108	5614ff	*L. odoratus*	A	1-6'	CFSV	MS-LS	DS TP	6-8	C	14–21	Sk, Cv
Sweet William	98	√ *web*	*Dianthus barbatus*	SSB	18"	FBC	ES	DS TP	6-8	M	7–14	
Thyme, Creeping	109	√ *web*	*Thymus serpyllum*	P	2-3"	FGB	MS-LS	DS TP DF	8-9	C	14–28	◗ Lt
Tithonia	109	5647ff	*Tithonia rotundifolia*	A	4-6'	BNS	MS-F	TP DW	6	W	7–14	
Verbena	109	5661ff	*Verbena* spp.	A	8", 48"	WBC	MS-F	TP	6-8	M	14–21	◗ Lt, Ch3w
Wallflower	109	5675	*Cheiranthus allionii*	B	9-12"	BC	MS-F	TP DS	6-8	C	7–21	
Zinnia	109	5700ff	*Zinnia* spp.	A	20-42"	BC	MS-F	TP DW	3-4	W	7–14	

FLOWERS

Flowers are arranged here alphabetically mostly by common name. For Dye plants see page 110.

- See chart on pages 92-93 for cultural information and common uses.

- Botanical index is on page 111.

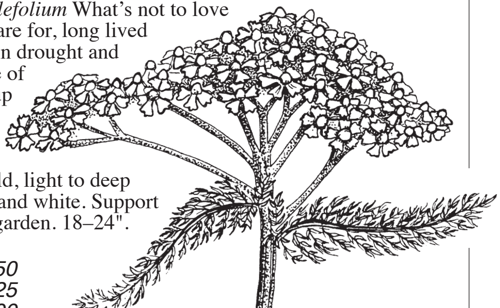
- Days in parentheses after a variety indicate days after seedling emergence to first bloom.

- All flowers open-pollinated unless noted.

Flower Mixes: see page 7.

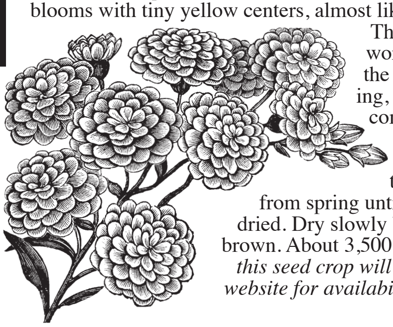
ACHILLEA *Achillea* spp.

Perennial to Zone 3. Named for Achilles, who used it to stanch battle wounds. We recommend White Yarrow (p. 91) for medicinal use. Likes full sun and good drainage. Avoid rich soils. Cut back spent blossoms to encourage another bloom.



Summer Pastels *A. millefolium* What's not to love about a yarrow? Easy to care for, long lived and long blooming, good in drought and beautiful, with a full range of soft pastel colors to light up any empty spaces in your sunny garden. This AAS winner covers the range from creamy yellow to gold, light to deep pinks, shades of lilac, red and white. Support beneficial insects in your garden. 18–24". About 6,000 seeds/g. ✿ ③

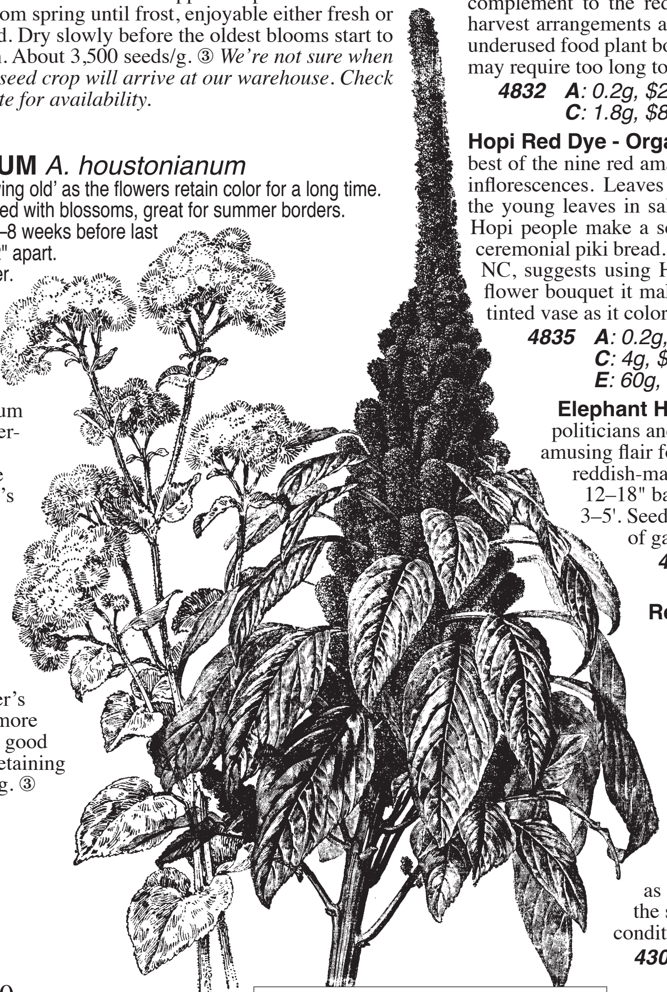
4803 ***A**: 0.05g, $4.50*
***B**: 0.15g, $9.25*
***C**: 0.6g, $22.00*



The Pearl *A. ptarmica* Bears clusters of fully double small white pompon blooms with tiny yellow centers, almost like a large double Baby's Breath. Though its common name Sneezewort would lead one to believe that the flowers induce excessive sneezing, actually it is less allergenic than common yarrow. Easily cultivated, spreads readily and makes an effective "wild" border, 2–3' tall. Supplies copious cutflowers from spring until frost, enjoyable either fresh or dried. Dry slowly before the oldest blooms start to brown. About 3,500 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

AGERATUM *A. houstonianum*

Annual. Its name means 'not growing old' as the flowers retain color for a long time. Also known as Flossflower. Covered with blossoms, great for summer borders. **Culture:** Start indoors at 80° for 6–8 weeks before last frost; grow on at 60–65°. Set 9–12" apart. Likes full sun. Water in hot weather. Extreme temperatures inhibit flowering. Will not tolerate frost. Cut for vase when flowers are first opening.



Dondo Blue (40 days from transplanting) A cutting ageratum with long stems. Fuzzy lavender-blue blooms hold nicely, even through a rainy summer, all the way from late July till October's killing frost. About 7,000 seeds/g. ③

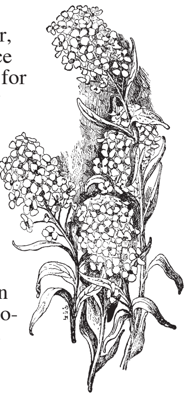
4811 ***A**: 0.1g, $3.15*
***B**: 0.5g, $6.50*
***C**: 2g, $10.50*

Red Flint (60 days) Dense fuzzy heads are beautiful, standing on sturdy 2' stems and catching the fading summer's light. The color isn't true red: more of a purplish-red. They make a good cut, and can be dried as well, retaining their color. About 7,000 seeds/g. ③

4815 ***A**: 0.1g, $3.25*
***B**: 0.5g, $6.50*
***C**: 2g, $10.50*

ALYSSUM *Lobularia maritima*

Annual. Widely recognized nectar source for beneficial insects. Growing alyssum provides nectar for hoverflies, which feed on aphids. Start seed in cool place 6 weeks before setting out. Needs light to germinate. Transplant seedlings 4–8" apart. Easy to grow, likes sun, tolerates some shade. To extend their season, shear plants halfway back four weeks after bloom. Resistant to frost, will tolerate temperatures below 25°. **About 2,370 seeds/g.**



Carpet of Snow (60 days) Free-flowering ground cover, blossoming from late spring well into fall with a fragrance like fresh-mown hay. Cascading habit makes it excellent for windowboxes or terrace edges. 4" dwarf white. Formerly known as Little Gem, predates 1890. ✿ ②③

4821 ***A**: 0.5g, $2.65* ***B**: 7g, $4.30*
***C**: 28g, $6.95* ***D**: 84g, $16.00*

White Alyssum - Organic (60 days) Similar to Carpet of Snow, but slightly taller and organic! ✿ ③

4822 ***A**: 0.5g, $3.00* ***B**: 7g, $5.00*
***C**: 28g, $8.00* ***D**: 84g, $17.00*

Royal Carpet Purple Alyssum (63 days) Luxuriate in shades of purple by blanketing your beds with this easy-to-grow dwarf 3" alyssum, a profusion of fragrant blossoms right up until the early fall frosts. 1953 AAS. ③

4823 ***A**: 0.5g, $3.00* ***B**: 7g, $5.00*
***C**: 28g, $9.50* ***D**: 84g, $20.00*

AMARANTH *Amaranthus* spp.

Annual. A dual-purpose crop, both nutritious and decorative. From the Greek *amarantos* for 'unfading.' Used as an ornamental, especially in harvest arrangements. Amaranth was an extremely important food of the Aztecs. **About 1,250 seeds/g.**

Love-Lies-Bleeding *A. caudatus* (90 days) Also known as Tassel Flower. Well loved by cottage gardeners for more than 300 years. This vigorous 2–4' branching annual sports long drooping red tassels that hold until frost. Makes a good border; stake and tie for neater appearance. Start indoors at 70–75°, grow on at 62–65°. Avoid heavy fertilization. Space at least 1' apart for strong stems. May be air-dried by hanging upside down; use heat for better color. ③

4831 ***A**: 1g, $2.50* ***B**: 7g, $5.75* ***C**: 28g, $9.95*

Hot Biscuits - Organic *A. cruentus* (65-75 days) Flaunts glorious 2' chestnut-bronze to copper-colored well-branched seedheads atop its majestic 4' stalks at maturity. Pinch back to facilitate branching. Wonderful decorative complement to the red amaranths, used as a garden backdrop or to give harvest arrangements a bright earthy autumnal color. Easy to grow. Also an underused food plant both for its seeds and its young leaves, though the seeds may require too long to mature in our climate. ①

4832 ***A**: 0.2g, $2.95* ***B**: 0.6g, $4.25*
***C**: 1.8g, $8.00* ***D**: 9g, $24.00*

Hopi Red Dye - Organic *A. cru.* (46 days) A stately 6' plant, Hopi was the best of the nine red amaranths we compared, displaying 1–2' deep burgundy inflorescences. Leaves may be green or burgundy or some variation. Eat the young leaves in salads or slightly steamed, admire them young or old. Hopi people make a scarlet food dye from the flower bracts to color their ceremonial piki bread. *Not* for dyeing fabric. Yanna Fishman of Union Mills, NC, suggests using Hopi in your floral arrangements. "When added to a flower bouquet it makes an ordinary clear jar look like an elegant purple-tinted vase as it colors the water." **Indigenous Royalties.** ①

4835 ***A**: 0.2g, $1.95* ***B**: 1g, $3.25*
***C**: 4g, $5.25* ***D**: 12g, $10.95*
***E**: 60g, $31.00*

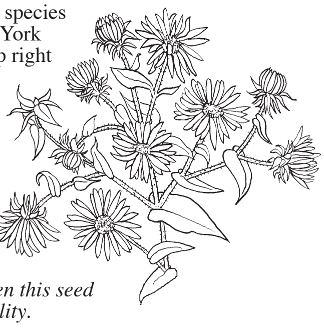
Elephant Head - Organic *A. gangeticus* (90 days) Tune out the politicians and elect this garden Elephant Head instead for its more amusing flair for the dramatic. The 140-year-old heirloom with deep reddish-maroon blooms develops a 6–12" vertical "trunk" atop a 12–18" base during August. The whole spectacular plant grows 3–5'. Seed from German immigrants saved by three generations of gardeners in Idaho, popularized by Seeds of Change. ①

4837 ***A**: 0.1g, $2.95* ***B**: 0.3g, $4.25*
***C**: 1.2g, $9.50* ***D**: 6g, $24.00*

Red Callaloo *A. tricolor* (120 days, but harvest young leaves to eat) Callaloo is a Caribbean stew that has many local variations, as does the name of the greens and the variety of amaranth used in the dish, which also varies from island to island. The tricolor blaze on the tall upright Callaloo in August, more red than Hopi Red Dye, will wow even the most reluctant amaranth-green eaters. Double Wow!—even eaten raw straight from the field, we found it soft smooth easy eating. Cooked with some tomatoes, peppers, onions, and garlic in a version of the stew it was tender and delicious. Cutting back the stalks for early leaf harvest only makes the plant bushier. Grow it as an ornamental and then eat it. Not all plants are red at the seedling stage, but they eventually turn. Prefers warm conditions. About 1,250 seeds/g. **Black Benefit Sharing**. ③

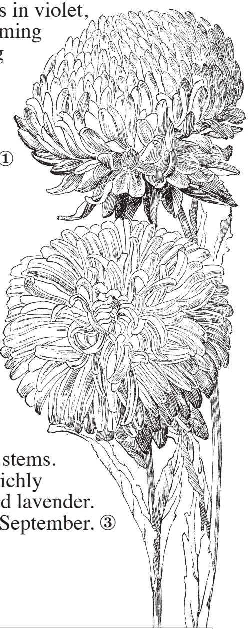
4301 ***A**: 1g, $2.95* ***B**: 4g, $5.50*
***C**: 16g, $10.50* ***D**: 80g, $25.00*

New Hybrids Aster *Symphyotrichum novi-belgii* Perennial to Zone 4. A good antidote when summer flowers fade and the late-season doldrums hit your garden. These hardy "New York" (the species name dates back to when the State of New York was known as New Belgium) asters pick up right where the others leave off, blooming the first year in a range of colors from red to purple and bluish to white in sequence from August to November. Because this is a mix of various hybrids and each type, in turn, blooms for several weeks, it makes a continuous long-lived show of color on the 4' plants. The New World asters have been taken from the *Aster* genus and some were renamed *Symphyotrichum*. About 1,700 seeds/g. ③ *We're not sure when this seed will arrive—check our website for availability.*



CHINA ASTER *Callistephus chinensis*

Annual. *Callistephus* is from Greek *kallos* meaning 'beautiful' and *stephos*, 'crown.' The common name of aster comes from the Greek *astron*, meaning 'star,' a reference to their shape and bright colors. The China Aster began its journey west around 1730 when a Jesuit missionary noticed it growing in a field near Beijing. Wildly popular by 1883 when Burpee listed 19 different classes of them compared to two each of marigold and zinnia. Good bedding plants or cutflowers.
Culture: Sow indoors at 70–72˚ in late winter, transplant after danger of frost. Cut stems when 2–4 flowers have opened. Vase life is 5–7 days. Aster Yellows is a serious disease problem. Use floating row covers (page 142) to keep out leafhoppers, the vector. **About 450 seeds/g.**



Crego Mix - Organic (90 days) Bold ostrich-feather blooms on 2' plants make a shaggy late-season appearance with 4" flowers in violet, lavender, pink, rose, fuchsia and white. This fall-blooming beauty holds well in wet or cold conditions, providing a bit of late-season color in the garden or bouquets. Maule in 1915 asserted that they "surpass in size and beauty any other aster we have ever seen." "Pleasing, stately, handsome and vigorous," concluded H.W. Buckbee in 1927. The grower calls them "stunning." ①

4852 **A**: *0.5g, $3.00*
B: *4g, $4.75*
C: *16g, $8.50*

Matsumoto Mix (100 days) A very classy cutflower that may be harvested by the individual stem or in its entirety. Flowers sport distinct yellow centers amidst a variety of shades including apricot, blue, pink, red, rose, salmon and white. 2" semi-double blooms are concentrated at the top of strong 2$^{1}/_{2}$' stems. ③

4854 **A**: *0.2g, $3.25*
B: *3g, $14.00*
C: *9g, $26.75*

Princess Mix (110 days) 2–3" flowers on long wiry stems. The pompon blooms with deeply crested centers are richly colored in shades of purple, salmon, magenta, rose and lavender. Late-blooming elegant cutflowers are unsurpassed in September. ③

4857 **A**: *0.25g, $2.95*
B: *2g, $4.75*
C: *8g, $8.50*

Seed Longevity for Herbs and Flowers

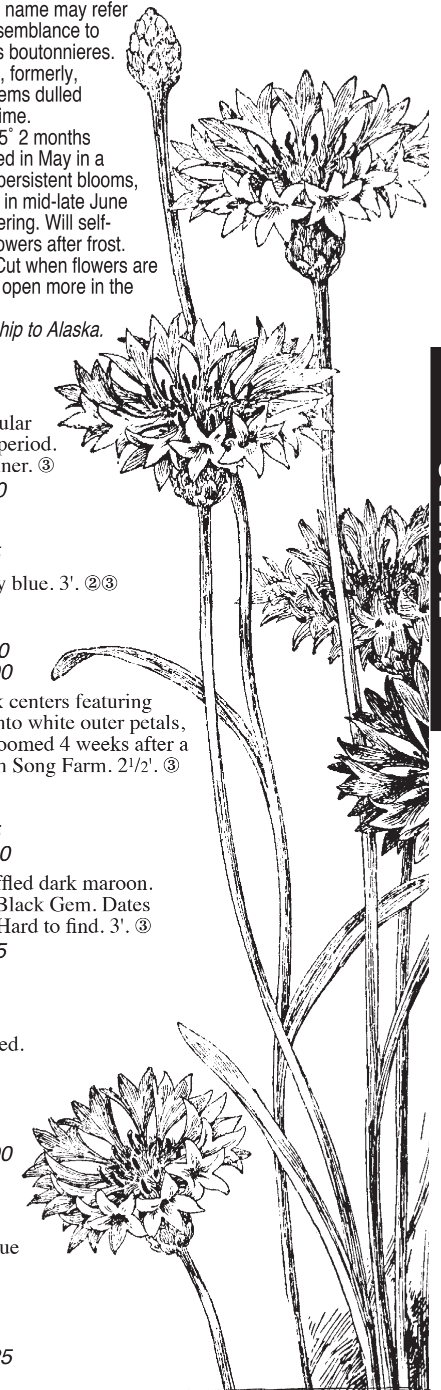
We have integrated results from several tables with our own first-hand knowledge from testing old lots for germination. Seeds stored in less-than-ideal conditions will have shorter life spans.

Plant name is followed by years.

achillea	2
alyssum	3
amaranth	3-5
anise	3
aster (NY & China)	1
baby's breath	2
bachelor's button	3
basil	5+
borage	5+
calendula	3
campanula	3
caraway	3
catnip	5
celosia	3-5
chinese lantern	1
chives	1
cilantro	5+
columbine	2
coreopsis	2
cosmos	3-5
dahlia	2
daisy	3
delphinium	1
dianthus	3
didiscus	3
dill	3
fennel	3
four o'clock	2
gaillardia	2
hollyhock	3
honesty	2
impatiens	2
larkspur	1
lavatera	3-5
lavender	5
lemon balm	5
lobelia	3
lupine	2
marigold	3
marjoram	3
nasturtium	3-5
nicotiana	3
nigella	1
oregano	2
pansy	2
petunia(unpelleted)	5
phlox	1
poppy	3
sage	3
salvia	1
savory	3
snapdragon	3
statice	2
stock	3
strawflower	2
sunflower	3
sweet pea	3
thyme	3
tithonia	2
zinnia	3-5

BACHELOR'S BUTTON *Centaurea cyanus*

Annual. Named for the centaurs of Greek mythology. Easy to grow, great for cutflowers and beds. Common name may refer to the tight unopened buds' resemblance to buttons or to their popularity as boutonnieres. Also known as Cornflower and, formerly, Hurt-Sickle because its wiry stems dulled many a sickle during mowing time.
Culture: Start indoors at 60–65˚ 2 months before setting out, or direct seed in May in a sunny location. Deadhead for persistent blooms, or make a succession planting in mid-late June if you desire late-summer flowering. Will self-sow. Lasts longer than most flowers after frost. Excellent drought resistance. Cut when flowers are just beginning to open—they'll open more in the vase and last 6–10 days.
About 180 seeds/g. *Cannot ship to Alaska.*



Jubilee Gem - Organic (60 days). Early frilly 2" periwinkle-blue blooms on semi-dwarf 2' plants. A popular favorite with a long bloom period. 1937 AAS silver medal winner. ③

4868 **A**: *0.25g, $2.50*
B: *1g, $4.25*
C: *4g, $9.25*
D: *12g, $19.95*

Blue Boy (90 days) Showy blue. 3'. ②③

4871 **A**: *1g, $2.60*
B: *28g, $5.45*
C: *112g, $11.50*
D: *448g, $26.00*

Frosty Mix (96 days) Dark centers featuring maroons and purples fade into white outer petals, creating a frosted effect. Bloomed 4 weeks after a May 2 transplanting at Loon Song Farm. 2$^{1}/_{2}$'. ③

4873 **A**: *1g, $2.95*
B: *7g, $4.95*
C: *28g, $10.95*
D: *112g, $25.00*

Garnet Boy (90 days) Ruffled dark maroon. We've sometimes called it Black Gem. Dates from Buist's 1942 catalog. Hard to find. 3'. ③

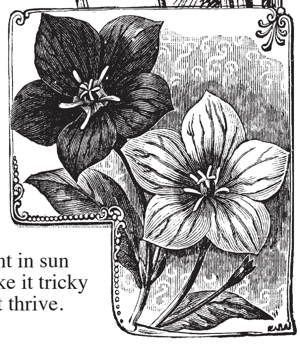
4875 **A**: *0.25g, $2.75*
B: *1g, $4.75*
C: *4g, $7.50*
D: *12g, $11.50*

Red Boy (90 days) Deep red. Dates from 1942. 3'. ②

4877 **A**: *1g, $2.95*
B: *7g, $4.75*
C: *28g, $8.00*
D: *448g, $26.00*

Bachelor's Button Mix (90 days) A custom blend in the full range of colors: pink, red, and white with blue predominating. 3'. ②

4879 **A**: *1g, $2.95*
B: *28g, $5.15*
C: *112g, $8.95*
D: *448g, $25.25*



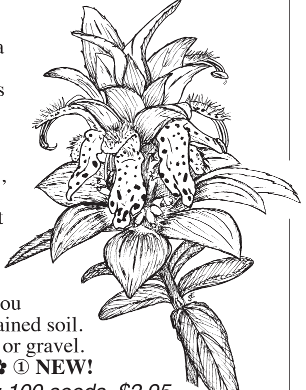
Florist Blue Balloon Flower *Platycodon grandiflorus* Perennial to Zone 3. This 2$^{1}/_{2}$–3$^{1}/_{2}$' cultivar bears long-lasting deep blue rounded star-shaped flowers from June to August. Called Balloon Flower because the buds look like inflated balloons ready to burst. Developed specifically for the cutflower trade from a plant native to East Asia. One of the Seven Flowers of Autumn in Japanese gardening. Slow to emerge in spring; needs some support once it does. Plant in sun to light shade, 12–18" apart. Taproot can make it tricky to transplant. Avoid wet soil where it will not thrive. About 1,000 seeds/g. ③

4881 **A**: *50 seeds, $2.50*
B: *200 seeds, $4.50*
C: *500 seeds, $8.00*

Double Camellia Mix Balsam *Dropped for lack of interest.*

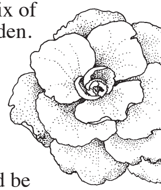
Panorama Red Bee Balm *Monarda didyma* Perennial to Zone 3. A stable red bee balm from seed is hard to come by! Bushy clumping 30" Panorama bears 1–2 whorls of true-red tubular flowers on each stem from mid to late summer. Also known as Oswego Tea: the Oswego Indians used the species for tea as did the colonial American separatists in their struggles with the British over tea taxes. Attractive to butterflies, hummingbirds and, of course, bees, Monarda can grow in either sun or shade. In shade its bloom time is lengthened but it can be blighted by powdery mildew (which lessens its attractiveness but not its longevity). Direct seed or transplant, surface sow in spring or summer, takes 14 days to germinate. About 2,000 seeds/g. ✿ ②

4886 ***A**: 25 seeds, $2.35* ***B**: 100 seeds, $5.00*
***C**: 250 seeds, $9.00*



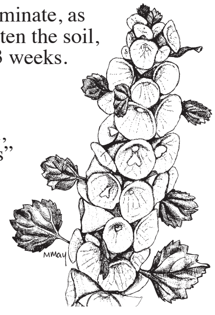
Spotted Bee Balm - ECO *M. punctata* Perennial to Zone 3, but should be treated like a self-sowing annual. Native to the Northeast. A whimsical beauty that boasts complex blossoms topping 2' stems in light pink, green, beige and maroon. This native plant has many culinary and medicinal uses as well. Traditionally used to treat stomach ailments, kidney disease, colds, pain and inflammation. Its oregano-like aroma and flavor is lovely for tea and seasoning. Great for interplanting with trees and shrubs, or as an addition to ornamental and herb gardens. Surface sow in spring; we recommend you start these tiny seeds in pots, but direct sow if you must. Prefers full sun to part shade and well-drained soil. Tolerates drought and poor soil, including sand or gravel. Leave spent flowers to allow for self-seeding. ✿ ① **NEW!**

4887 ***A**: 25 seeds, $1.95* ***B**: 100 seeds, $2.95*
***C**: 250 seeds, $4.85* ***D**: 1,000 seeds, $10.50*
***E**: 5,000 seeds, $25.00*



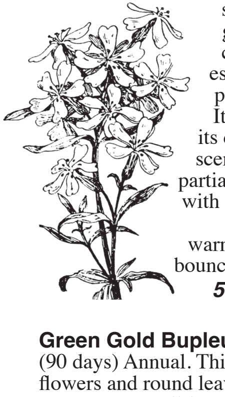
Nonstop Tuberous Begonia *B. x tuberhybrida* (140 days) F-1 hybrid. Perennial in Zone 10, grown as an annual. A boisterous mix of flamboyant color to awaken the shady corners of your garden. Nine shades, from pink to fiery red, apricot to golden orange, plus yellow and white, create a riot of color in a shady garden border or in hanging pots. Europe's #1 windowbox plant sports showy 3½–4½" fully double blooms on vigorous basal-branching stems. Begonias like shade, moisture, very rich soil, will tolerate a bit of sun. Start indoors, set out after all danger of frost. Seeds should be pressed into soil but not covered; they need light to germinate, as well as temps around 75°. After sowing, carefully moisten the soil, and then maintain even moisture until germination, 2–3 weeks. Pelleted seed is packed by seed count, not weight. ②

4889 ***A**: 10 seeds, $3.25* ***B**: 50 seeds, $7.50*



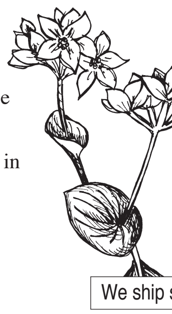
Bells of Ireland *Moluccella laevis* (110 days) Annual, everlasting. Spikes of bright green bell-shaped "flowers" atop 2½' branching stems. Each green bell is really a showy inflated calyx with a tiny pinkish flower inside. When dried, bells turn creamy white. Likes partial shade; thrives in cool climates. Needs light to germinate. Will self-sow. About 140 seeds/g. ②③

4896 ***A**: 1g, $2.95* ***B**: 3g, $4.25*
***C**: 15g, $8.00*



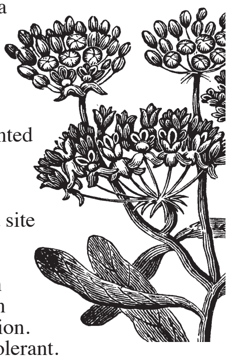
Bouncing Bet *Saponaria officinalis* Perennial to Zone 3. Also known as Soapwort. Bet is not a dye plant, but is included in a dye garden because its saponin-rich roots and leaves can be used to wash wool gently when some lanolin retention is desired. Museum conservators use it to wash delicate fabrics and textiles, especially of grease. This charming sweetly scented pink perennial is often seen around old homesteads in Maine. It has always been appreciated for the late-July colors of its dense clusters of 5-petaled flowers and their faint clove scent that attracts pollinators. The 3' plant thrives in moist, partially shady areas but should not be planted next to ponds with amphibians or fish since saponins can be toxic. Choose your planting spot carefully, because, as one customer warned, "Bet has taken me years to get out of my garden, it bounces everywhere." Stratify seed. About 600 seeds/g. ✿ ③

5920 ***A**: 0.2g, $2.85* ***B**: 0.6g, $3.65*
***C**: 3g, $5.95* ***D**: 12g, $13.75*



Green Gold Bupleurum *B. rotundifolium* var *griffithii* (90 days) Annual. This unique plant with yellowish flowers and round leaves is treasured by dried-flower growers. Its well-branched 2' stems air-dry perfectly, retaining their green color as if dried in glycerine. Because each stem fans out, an individual stem provides backdrop for an entire arrangement, either fresh or dried. Start indoors early to reach full growth potential. Will self sow in warmer areas. About 320 seeds/g. ③

4903 ***A**: 20 seeds, $2.95*
***B**: 100 seeds, $5.25*
***C**: 500 seeds, $16.00*
***D**: 2,000 seeds, $27.00*

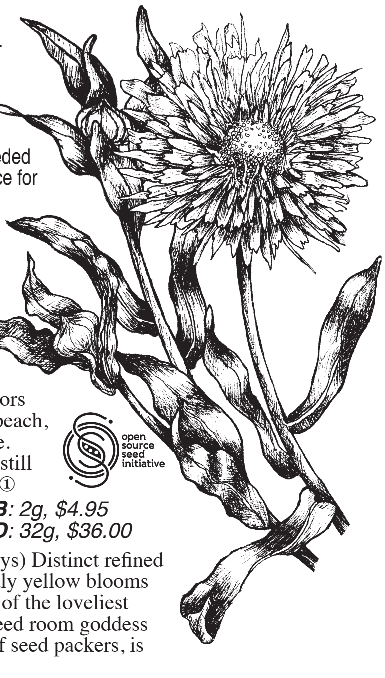


Butterfly Weed *Asclepias tuberosa* Perennial to Zone 4. Also called Pleurisy Root. Native to North America and widely adapted, this bright sun-lover provides a bold splash of bright orange from June until frost. Vigorous mounded 2x2' plants bear broad 5" heads of waxy flowers attractive to butterflies and bees. Leaves are a food source for monarch butterfly larvae. Both the flowers and pointed seedpods are useful for cutflower arrangements. Native Americans used roots to combat lung and throat troubles and to soothe wounds and sores. Germinates in 3 weeks at 70°. Choose a permanent site with well-drained fertile sandy soil because its tuberous roots do not like to be disturbed. Direct sow in spring or fall, thinning to 18–24". Cut when at least half the flowers are open. Use caution when handling cut butterfly weed as sap can cause irritation. Slow to emerge in spring. Exceptionally drought-tolerant. About 200 seeds/g. ✿ ②

4906 ***A**: 0.5g, $3.25* ***B**: 2g, $6.75* ***C**: 6g, $11.95*

CALENDULA *C. officinalis*

Annual. Old kitchen garden flower, 18–20" tall, also known as Pot Marigold. Beautiful daisy-like flowers feed pollinators, are good for informal bouquets, and are also edible. Blossoms can be pinched from their stems, dried and added to soups, salads and stews. They are also used in homeopathic remedies, herbal tinctures and ointments for their antiseptic and soothing qualities.



Culture: Calendulas bloom over an extremely long period, thrive in cool weather and persist through autumn's first frosts. Can be direct seeded in May or started indoors in a cool place for early blooms. Readily self-sows. Don't crowd, give them full sun. Deadhead to keep blooms coming and the patch attractive, or try succession plantings. **About 115 seeds/g.**

Flashback - Organic (55 days) A mix of orange, apricot and peachy doubled petals, all with red backing to create a distinctive contrast. Colors fade to bicolor yellows or yellow-peach, adding interest as the plants mature. Blooms withstand light fall frosts; still look good in October. **OSSI.** Ω ✿ ①

4911 ***A**: 0.5g, $2.95* ***B**: 2g, $4.95*
***C**: 8g, $13.00* ***D**: 32g, $36.00*

Kablouna Mix - Organic (60 days) Distinct refined form features striking crested mostly yellow blooms with dark contrasting centers. One of the loveliest of the calendulas. Kablouna, our seed room goddess who looks after the good fortune of seed packers, is currently at large. ✿ ①

4913 ***A**: 1g, $3.25* ***B**: 4g, $5.25*
***C**: 12g, $10.50* ***D**: 48g, $23.00*

Pacific Beauty Mix The classic lovely yellow and orange mix. Herbalists highly regard its healing gifts. ✿ ②

4920 ***A**: 2g, $2.95* ***B**: 14g, $5.25*
***C**: 56g, $10.50* ***D**: 224g, $25.00*

Resina - Organic (70 days) The best calendula for making tinctures and oils and the one Deb Soule grows at Avena Botanicals. Medium-sized single blooms with small eyes are extremely resinous, coating your fingers or clippers while you harvest flowers. The medicinal sticky resins impart a pleasant odor. Blossoms are primarily bright yellow with yellow centers. A few will be orange with light orange centers. ✿ ①

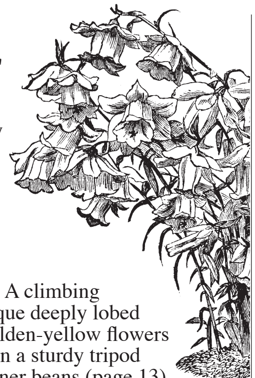
4925 ***A**: 1g, $3.25* ***B**: 3g, $5.25*
***C**: 9g, $10.50* ***D**: 27g, $23.00*

Solar Flashback - Organic (55 days) A hot release from Frank Morton's calendula program. Morton describes it as "a distinctive new family of flash, selected to highlight contrast between bright light yellows, pinks, and solid red or maroon." Some feature yellow petals, some pinkish-blond, some yellow with light tips, all with contrasting red backs. Take a vacation from calendula orange. ♣2007. **OSSI.** Ω ✿ ①

4927 ***A**: 1g, $3.65* ***B**: 4g, $5.95*
***C**: 12g, $11.25* ***D**: 48g, $33.00*

Zeolights - Organic Pinky-maroon backing shows through the yellow petals to lend a pink tinge to the familiar calendula-yellow. Dark centers accentuate the color contrast. A Frank Morton original. **OSSI** Ω ✿ ①

4929 ***A**: 1g, $3.50* ***B**: 4g, $5.50*
***C**: 12g, $11.00* ***D**: 48g, $33.00*



Blue Clips Campanula *C. carpatica* Perennial to Zone 4. Also known as Bellflower or Carpathian Harebell. Masses of light azure bellflowers dance 8" high above a tidy mound of foliage up to 12" wide. Remarkable flower power at the front of the border and equally good in containers. Very hardy and easy to grow, Blue Clips will bloom in sun or partial shade from June to October as long as spent flowers are deadheaded. ②

4930 ***A****: 50 seeds, $4.65*
B*: 200 seeds, $11.00*
C*: 500 seeds, $23.00*

Canary Creeper *Tropaeolum peregrinum* Annual. A climbing relative of the nasturtium. Profuse 8' vines with unique deeply lobed frog-toe–like foliage and clusters of lacy-petaled golden-yellow flowers from midsummer till frost. Gorgeous when grown on a sturdy tripod with morning glories (page 103) and/or Scarlet Runner beans (page 13). Grows in shade but prefers full sun. About 15 seeds/g. ③

4932 ***A****: 1g, $2.95* ***B****: 7g, $7.50* ***C****: 28g, $15.50*

Persian Catmint *Nepeta mussinii* Perennial to Zone 4. While we can't duplicate the lavender fields of Provence, we can create a similar look by planting catmint. Its soft grey-green leaves clothe wiry 1' stems crowned with clusters of bluish-lavender tubular flowers. A member of the mint family, it grows rapidly in rich moist soils, but in sandy drier conditions can be contained. Plant early for blooms the first year. Thereafter will flower for 6 weeks from early spring to summer. Shear plants after blooming to encourage repeat blooms and to diminish self-sowing. Plant in full sun 2' apart. About 1,200 seeds/g. ✿ ③

4937 ***A****: 0.1g, $2.75* ***B****: 0.3g, $5.00*
C*: 1.2g, $7.50* ***D****: 6g, $11.00*

Ruby Parfait Celosia - Organic *C. argentea* var. *spicata* Annual. (75 days) Upright 20–26" tall multi-branched wheat-type celosia produces showy spikes, light pink at the base turning to a deep rose-magenta at the tip. Green foliage starts at ground level. A prolific and striking display en masse, as a border, or in containers. Excellent cutflower for fresh and everlasting arrangements. Blooms July through frost. Hums with bees from mid-afternoon until dusk. Celosia is from the Greek *keleos*, 'blazing.' Bright colors, furry textures and unusual shapes characterize the genus. From hot climates and at its best in hot dry weather. Should germinate within 10 days at 72–80˚. Prefers full sun and moist rich soil, though does well in marginal dry soil as well. Does not tolerate standing water. ✿ ①

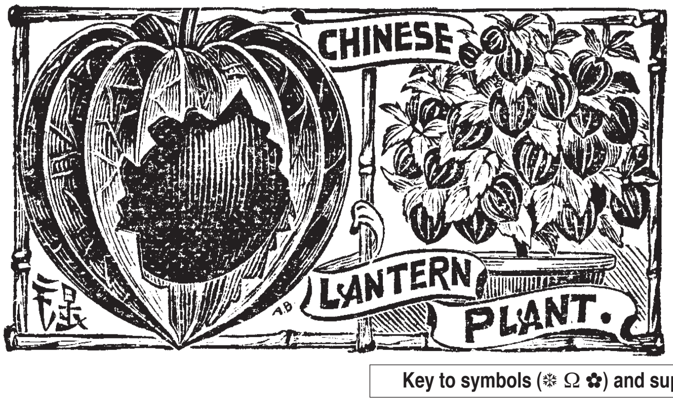
4950 ***A****: 0.1g, $2.75* ***B****: 1g, $7.00* ***C****: 4g, $16.00*

Kiwi Blue Cerinthe *C. major* var. *purpurescens* Annual. Also known as European Honeywort or Wax Plant. Vigorous bushy 12–30" annual comes into focus when cool fall nights accentuate its colors. Coin-shaped grey-green foliage covers the sprawling stems. Profuse blue shrimp-like bracts bear terminal purple flowers shaped like comfrey blossoms. Beloved by bumblebees who jam their heads into the blossoms and make the cutest sound. Also beloved by flower arrangers. Tolerates heat, withstands light fall frosts. Good in a massed border. Direct seed or start indoors 6–8 weeks before setting out after danger of frost. Quick emerging and rugged. About 15 seeds/g. ② ✿ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

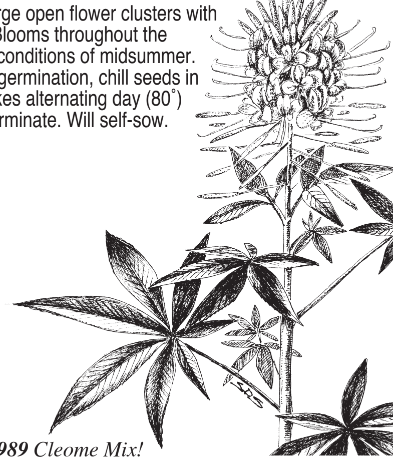
Firmament Chinese Forget-Me-Not *Cynoglossom amabile* Annual. Also known as Hound's Tongue. Uniquely bright dainty 5-petaled azure-blue blossoms. Floriferous throughout the summer with three blooms per cluster and a half dozen clusters per plant. Try alongside calendula for color contrast. Introduced by Ernst Benary. 1939 AAS. Start indoors 6 weeks before the last frost or direct seed outdoors in spring. Germinates in 5–10 days at 65–70˚. Space plants 9" apart. Prefer full sun. 16–18". About 200 seeds/g. ②③

4965 ***A****: 1g, $2.95* ***B****: 7g, $3.75* ***C****: 28g, $6.25*

Chinese Lantern *Physalis alkekengi* Perennial to Zone 3. Grown for its deep orange "lanterns," the calyxes that surround the red fruits and hold their color when dried. *Physalis* is Greek for bladder, referring to these husks. May be sown indoors in warm place. Likes full sun. Dig out or cut back the roots every three years to counteract its invasive tendencies. About 600 seeds/g. ③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*



CLEOME *C. hassleriana*



Annual. The Spider Flower sets large open flower clusters with very long stamens atop 4' stalks. Blooms throughout the summer and likes the hot and dry conditions of midsummer. Very attractive to bees. For better germination, chill seeds in refrigerator. Do not cover seed. Likes alternating day (80˚) and night (70˚) temperatures to germinate. Will self-sow. **About 450 seeds/g.**

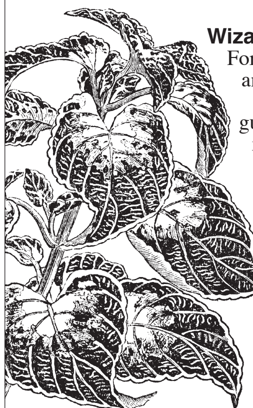
White Queen ✿ ③

4988 ***A****: 0.5g, $2.95*
B*: 2g, $5.50*
C*: 8g, $8.50*
D*: 32g, $16.00*

Cleome Mix - Organic
An organic mix of three colors: rose, violet and white. ✿ ②

4989 ***A****: 0.5g, $3.25*
B*: 2g, $6.50*
C*: 8g, $10.75*
D*: 32g, $24.00*

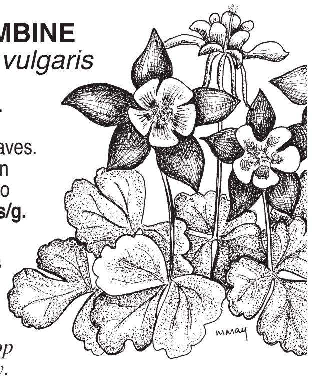
Violet Queen *Dropped. Try **4989** Cleome Mix!*



Wizard Coleus *Coleus scutellarioides* (45 days) Formerly *C. blumei*. Perennial in Zone 10, grown as an annual. Leaves are a resplendent kaleidoscope of colors: rose and ivory edged in green, deep velvet burgundy centered with flame, bronzed pink, scarlet…12 in all. The colors are strongest in deep shade, lighter in part shade. Germinate at 65˚. Do not cover. Do not overwater; subject to damping off. Easy to grow and maintain. Just pinch off any late-season flower stalks. Grows 10–12", great in window boxes and planters. Nikos brings her favorites indoors before frost and enjoys their magic all winter long. About 3,500 seeds/g. ⑤

4992 ***A****: 50 seeds, $3.95*
B*: 300 seeds, $10.50*

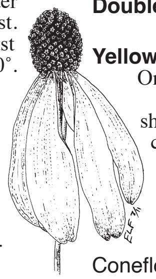
COLUMBINE
Aquilegia vulgaris



Perennial, Zones 3-10. Columbines are an essential part of the cottage garden or border. Their delightful flowers in mixed colors bloom in spring and dance above attractive lobed leaves. Easy to grow, likes moist well-drained soil, sun or partial shade. Self-sows freely. Need light to germinate; take 3–4 weeks. **About 600 seeds/g.**

European A better landscape plant than Mrs. Elliot or McKana Giants because its leaves remain green through the whole season. Spurless blossoms are mostly pink, with a few purples and whites. 2½'. ③ *We're not sure when this seed crop will arrive. Check website for availability.*

Double Take - Organic *Crop failure—not available in 2024.*



Yellow Prairie Coneflower *Ratibida columnifera* Perennial to Zone 3. One recent summer, Nikos was enticed into a field by a yellow fluttering of dancing flowers on erect 1–3' slender stems. As she approached, she could see that the yellow petals merely skirted around a protruding cylindrical chocolate-brown center. One of its names, Mexican Hat, evokes a tall sombrero and the lively and colorful Mexican Hat Dance. Prairie grasslands native likes full sun, blooms May through August, undaunted by drought. About 1,000 seeds/g. ③

5007 ***A****: 1g, $3.00* ***B****: 4g, $4.00* ***C****: 16g, $7.25*

Coneflower: also see Echinacea, page 88, and Rudbeckia, page 105.

Early Sunrise Coreopsis *C. grandiflora* Perennial to Zone 3. Won 1989 AAS for its ability to bloom weeks earlier than other Coreopsis. Dense well-branched 18" plants are loaded with 2" semi-double vivid golden-yellow blooms loved by syrphid flies, lady beetles, lacewings, parasitic wasps and many other beneficials. Excellent for eco-dyeing, too. Aerial parts of the plant make a burnt sienna with a rusty orange hue. Start indoors 8–10 weeks before setting out in sunny spot, 12–18" apart. Do not cover seed. For cuts, harvest when flowers start to open. Primed seed. About 400 seeds/g. ✿ ⑤

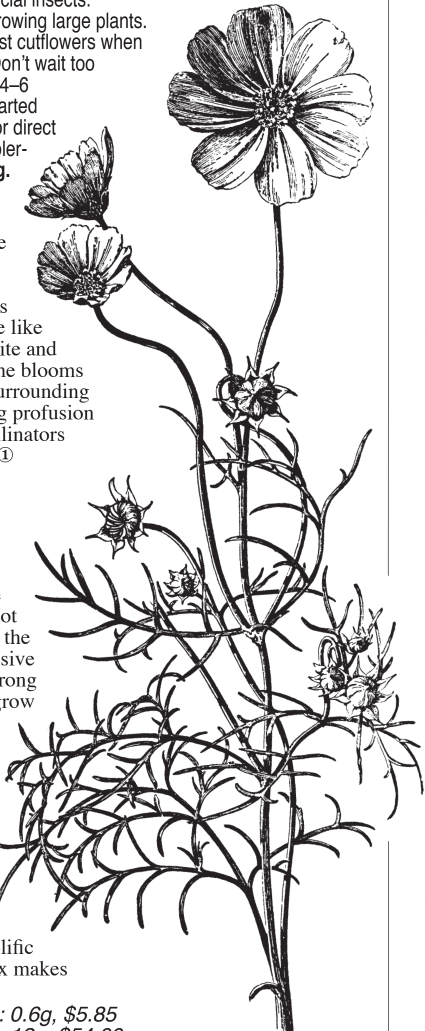
5012 ***A****: 0.1g, $3.50*
B*: 0.3g, $5.95*
C*: 0.9g, $12.00*

Also see **5904** Dyer's Coreopsis, page 110.

COSMOS *C. bipinnatus*

Annual. Sun-loving, free-flowering all summer, can serve as an accent, screen or cutflower. Colorful daisy-style flowers with yellow centers bloom amidst lacy cut foliage. Attracts a broad range of beneficial insects.

Culture: For best results, thin its fast-growing large plants. Deadhead for persistent blooms. Harvest cutflowers when petals on first flower are just opening. Don't wait too long! Old blooms don't last. Vase life is 4–6 days. Light aids germination. May be started indoors at 70–75˚ (grow on at 60–65˚) or direct seeded after last frost. Space 9–12". Tolerant of drought. **About 125–150 seeds/g.**



Cupcakes - Organic (90-100 days) These shimmering delicate beauties were named for the pleating of cupcake papers, evoked by the intricately fused folding of the outer petals. Lightweight blooms seem to float on upright stems, more like ballerinas pirouetting in tutus of white and pinks than like cupcake papers. Some blooms are doubled, with extra petal tufts surrounding a central yellow button—a charming profusion of frills. The 4' tall plants attract pollinators and have long stems for cutting. ✿ ①

5017 *A: 25 seeds, $3.55*
B: 100 seeds, $9.75
C: 400 seeds, $24.50

Cranberries Double Click (100-120 days) Stunning dark maroon semi-double to fully double flowers have a light picotee edge. Not the earliest to bloom but well worth the wait. Temporarily set back by excessive rains but makes a good recovery. Strong stems with attractive ferny foliage grow 2–3'. Long-lasting in a vase. ⑤

5021 *A: 0.2g, $3.50*
B: 0.6g, $4.75
C: 3g, $15.00

Double Click Mix (100-120 days) These double and semi-double award-winning flowers garner lots of attention with their puffy blooms in shades of pink, plum and white. 4' tall with sturdy stems, excellent for cutting, and prolific blooms until frost. This superior mix makes garden visitors do a double take. ⑤

5024 *A: 0.2g, $3.95* *B: 0.6g, $5.85*
C: 3g, $17.50 *D: 12g, $54.00*

Dwarf Sensation Mix - Organic (75 days) If you want a cosmos with earlier blooms to maximize flowering in short seasons, this Sensation is the way to go. A mix of pinks and white singles on 12" plants low enough to stay upright through the summer. Especially good in pots. ✿ ③

5025 *A: 0.5g, $2.95* *B: 3g, $5.95*
C: 15g, $14.95 *D: 60g, $45.00*

Picotee (90 days) Bicolor flowers vary in hue from white to pink to rose, with each serrated petal edged in contrasting magenta. Plants grow 4' climaxed by blooms 2^{1}/2–3" across. A beautiful addition to your cosmos bouquet. ✿ ③

5027 *A: 0.5g, $2.95* *B: 3g, $4.25*
C: 15g, $8.25 *D: 60g, $14.50*

Rubenza (75-90 days) A delicate cosmos in rich hues ranging from burgundy to deep amber rose. The 2^{1}/2–3^{1}/2" flowers contrast nicely with bright green foliage. Grows 3–4' tall—trellising will prevent them from tipping over in wind and rain. ② *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Sensation Mix (85-90 days) So named because its early maturity created a sensation when it first came out in 1930. Won AAS 6 years later. These large-flowered cosmos, in pinks, roses, magentas and occasional whites, need little tending. Withstand the first mild frosts of fall. 4–5'. ✿ ②③

5035 *A: 1.4g, $2.95* *B: 14g, $5.75*
C: 56g, $10.95 *D: 448g, $39.50*

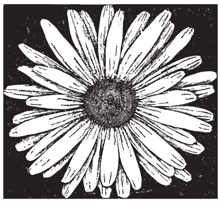
Tango Cosmos *C. sulphureus* Luxuriant flame-red free-flowering double blossoms wane to bright orange with yellow centers on wiry 18" stems that float above the deeply lobed dark green foliage. Ideal for cutflower production. 4' tall plants span almost 4^{1}/2' wide. Planted alongside zinnias, sunflowers and amaranth, they are spellbinding. We learned from a customer at the 2022 Common Ground Fair that this *sulphureus* is an excellent dye plant with similar attributes as **5904** Dyer's Coreopsis. Tango dodged a light September frost and continued its dance well into October, but *C. sulphureus* is sensitive to frost. ③

5039 *A: 0.5g, $2.95* *B: 3g, $5.95*
C: 15g, $11.50 *D: 60g, $29.00*

SHASTA DAISY *Leucanthemum* x *superbum*

Perennial to Zone 4. *Leucanthemum* means 'white flower' and the daisy, with its white petals and yellow centers, is a flower almost everyone can name. Provides great cuts and can serve as a long-lasting low-maintenance backbone in a perennial bed or border. The first hybrid flower, developed by the legendary Luther Burbank from one Japanese and three European daisies. It took him 17 years.

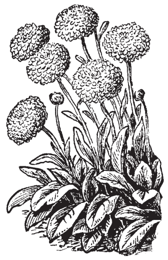
Culture: Start indoors in warm soil 6–8 weeks before setting out in a well-drained location in full sun. Pinch back in late spring for bushier sturdier plants.



Alaska Strain The clean snow-white flowers with bright yellow centers make cheery cutflowers and border plants. One of the easiest perennials to grow; will usually bloom first year if started indoors in spring and transplanted when soil warms. 3' tall. About 750 seeds/g. ②

5047 *A: 0.5g, $2.50* *B: 4g, $3.95* *C: 16g, $6.50*

Crazy Daisy We're crazy for this daisy because its quilled petals are unlike any other in the Shasta class. Almost all of the 2^{1}/2–3" creamy white blossoms are fully double and reminded us of dahlias. Bloomed the second year for Donna Dyrek starting on July 6 and put on a good show for nearly a month. The later blossoms were less doubled, showing the small yellow centers more. Required no protection to overwinter in central Maine, but mulching is recommended for colder areas. 24–28" tall. Need a cold period and long days to initiate bloom. About 900 seeds/g. ③

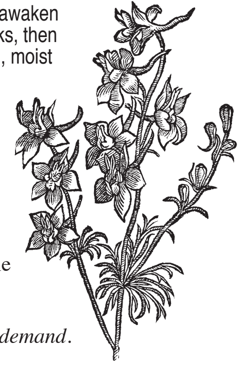


5049 *A: 0.1g, $2.95*
B: 0.3g, $4.95
C: 1.2g, $8.50

DELPHINIUM *D.* x *cultorum*

Perennial to Zone 3. Magnificent dense racemes make delphinium excellent in the border and as a cutflower. The name comes from the Greek for 'dolphin' and refers to the shape of the spur containing the nectar. Large raceme with many flowers. All parts of the plant are toxic if ingested, and can cause skin irritation.

Culture: Old seed goes dormant and is very hard to reawaken so order fresh seed each year. Chill seed for 2–4 weeks, then germinate at 65–75˚ and grow on at 50–60˚. Likes sun, moist rich soil, can tolerate some shade. Heavy feeder; sidedress in spring with well-composted manure. Harvest for cuts when one quarter of the flowers are open. **About 450 seeds/g.**



Astolat Pacific Giant Pastel mix in lilac, raspberry and rose with dark bees. 6'. ② *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Black Knight Pacific Giant Intense dark purple with black bees. Stately and breathtaking. 6'. ②③ *Check website for availability.*

Connecticut Yankee Mix *Dropped for lack of demand.*

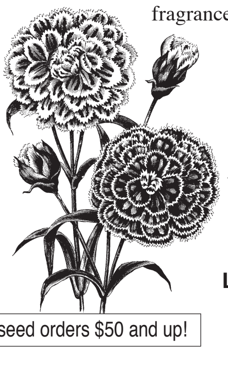
DIANTHUS spp.

The name comes from the Greek meaning 'divine flowers.' Some are carnations; some are commonly known as Pinks, not for their color, but for their serrated petal tips which look like they've been cut with pinking shears. All have fabulous fragrance.

Double Choice Mix Sweet William *D. barbatus* Biennial to Zone 4. A fragrant self-sowing 18" biennial with familiar flat-topped flower clusters in red, pink, white, lavender or mixed colors. Germinates in 7–14 days at 70˚. Start 2 months before setting outdoors, or direct seed in late summer or fall. Requires full sun and good drainage; likes lime. About 715 seeds/g. ② *We're not sure when this seed will arrive. Check website for availability.*

Reisen Giant Superb Mix *D. caryophyllus* Perennial to Zone 8, grown as an annual. 20" plants produce fully double fringed carnations in an array of colors (red, violet, rose, white and bicolor) with corresponding differences in fragrance. The perfumed clove scent of the red is the most tantalizing, reminiscent of the exquisitely scented flowers that one reads about in old horticultural lore. About 500 seeds/g. ③

5063 *A: 0.2g, $2.95* *B: 1g, $4.50* *C: 3g, $7.25*



Rainbow Loveliness Mix *D.* x *hybrida* Annual. Rainbow Loveliness has fragrance: glorious, heavenly, sinfully delicious and intoxicatingly jasminy. Such scent, often bred out of modern hybrids, is the primary attribute which gives Dianthus its deserved reputation among avid fans. Neither do their looks disappoint: a bit out of this world, like terrestrial sea anemone, with segmented pentagon eyes out of which wave deeply fringed blooms, creating a wispy feathery effect. Grows 14" tall. Mix of carmine, white, pink and bicolored 1^{1}/2" blooms in loose clusters. Blooms late July from early June transplanting. About 1,200 seeds/g. ③

5065 *A: 0.02g, $2.50* *B: 0.1g, $3.95*
C: 0.3g, $6.95 *D: 3g, $12.00*

Lacy Blue Didiscus *Dropped for lack of interest.*

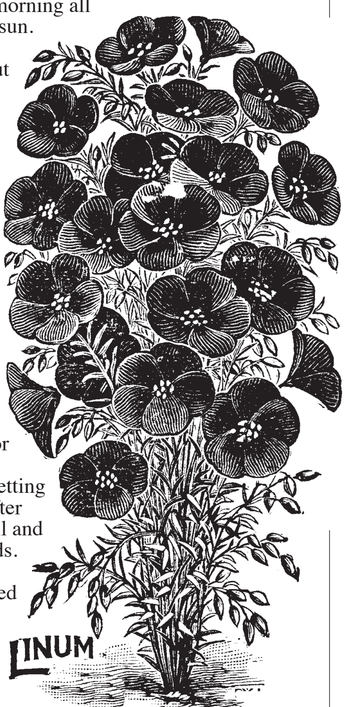
Drumstick Flower *Craspedia globosa* (100 days) Annual. Drumroll, please. The globular dimpled 3/4" yellow flower heads set atop durable 18" stems do look a bit like they could mark out a paradiddle or two. But better use would be as a carefree garden accent with a prolonged bloom, or brought inside in a long-lasting bouquet. They also dry with no fuss. Just stand them upright and they dry perfectly, retaining their color. A tender perennial in Zones 8–11 that blooms almost the entire season. In less temperate climes start indoors 6–8 weeks before the last frost. About 1,700 seeds/g. ②③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Silver Dollar Eucalyptus *E. cinerea* (120-150 days) Perennial to Zone 8, grown as an annual but has been known to overwinter in unheated high tunnels in Zone 4b Maine. Or grow it in a pot to bring inside for winter. Charming silvery blue-green 2" leaves flutter on their stems for a fabulous bouquet filler that dries nicely and freshens the room with fragrant oils. Harvest when leaves feel leathery. Slow growing, and seeds can take up to 40 days to germinate—start them early! Grows 2–3' tall; space plants 9–12" apart in full sun. About 47,000 seeds/oz. *We cannot ship to Hawaii.* ②

5075 ***A**: 20 seeds, $6.00* ***B**: 60 seeds, $12.00*
***C**: 120 seeds, $20.00* ***D**: 500 seeds, $70.00*

Blue Flax *Linum perenne* subsp. *lewisii* Perennial to Zone 4. Also known as Prairie Flax. Single light-blue flowers and finely cut foliage for borders or rock gardens. New flowers open every morning all summer, fade in afternoon heat. Likes full sun. Very drought tolerant. 9–12". Start indoors in a cool place 6–8 weeks before setting out or direct seed in cool soil in spring or fall. About 530 seeds/g. ②

5079 ***A**: 1g, $2.95*
***B**: 7g, $4.00*
***C**: 28g, $8.00*



Sussex Flax - ECO *L. usitatissimum* (110 days) Annual. We'd been seeking a seed source for this "most useful" (*usitatissimum*) flax for ages when we discovered that Roberta Bailey grew the variety we sought. She densely broadcasts seeds in late spring and encircles the patch by a simple rope fence to keep the 3' plants with their cunning periwinkle flowers from falling in the winds and rain. If growing for seed, direct sow 2–3 seeds per inch in rows 6–10" apart. If growing for fiber, sow more heavily. You can also start indoors in a cool place 6–8 weeks before setting out after danger of frost. Come October, after a few light frosts, the plants are easy to pull and most of them will have ripened brown seeds. Brown seeds are richer with more intense flavor than golden flax, and Sussex, as tested by the Irish Seed Savers Association, was found to have a higher alpha-linolenic acid content (an omega-3 fatty acid) than 17 other varieties. We love them added to porridge or to "flaxjacks." Processing the abundant straw into linen fiber for spinning requires a process called "retting," plus some skill and patience. But what better endeavor to pursue during a long dark winter? ① **BACK!**

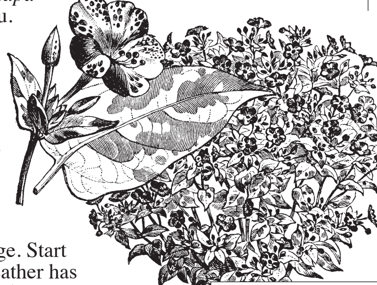
5080 ***A**: 2g, $4.15* ***B**: 14g, $15.95* ***C**: 28g, $25.00*

Flowering Cabbage Mix *Dropped. Grow a red cabbage and eat it!*

Forget-Me-Not *Myosotis sylvatica* Perennial to Zone 3. The older we get, the more we want to be surrounded by plants that care for themselves. This little charmer, a biennial or short-lived perennial that self-seeds for many years, fits the bill. Excellent grown in a mixed border, where they peek out atop 6" stems with clusters of sky-blue color. They tolerate a wide range of conditions and grow in both sun and shade. The only thing to remember is not to weed them out the following spring. About 1600 seeds/g. ②③

5091 ***A**: 0.1g, $2.75* ***B**: 0.5g, $4.75* ***C**: 3g, $7.50*

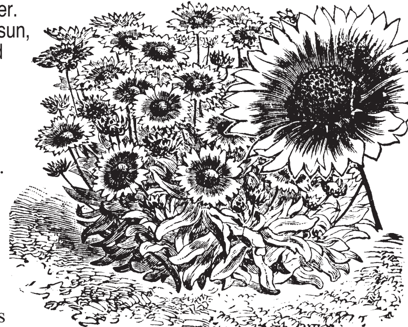
Tall Mix Four O'Clock *Mirabilis jalapa* Annual. Also known as Marvel of Peru. Breck's in 1885 called it "a very desirable plant where there is plenty of room," and suggests each specimen should stand singly 3' apart. Fragrant—like black pepper and apple wood—trumpet-shaped flowers, in bright shades of cerise, burgundy, pink, yellow and white, open in late afternoon, reaching peak glowing loveliness at dusk. The 2–3' plants make good background or annual hedge. Start indoors, transplant out when warm weather has settled in. Likes full sun. Will self-sow in warmer areas. Drought-tolerant. About 11 seeds/g. ②③



5095 ***A**: 3g, $2.50*
***B**: 9g, $3.95*
***C**: 27g, $6.75*

GAILLARDIA spp.

Also known as Blanketflower. Named for Gaillard de Charentonneau, an 18th-c. French botanical patron. Daisy-type flowers in reds, yellow, rust and orange with a prominent colored center. Free flowering, low maintenance and easy to grow. Attracts butterflies. Good cutflower.
Culture: Well-drained soil in full sun, tolerates drought. Perennials and annuals have slightly different growth specifications, detailed on the chart on page 92.



Blanketflower *G. aristata* (90 days) Perennial to Zone 4. Sun-loving native wildflower of the American Southwest blooms its first year. Petals radiate from red centers out into bright yellow tips on upright branching 18–24" plants. A favorite of butterflies and of gardeners who make bouquets. Low-maintenance, tolerates heat and drought. Start indoors 8–10 weeks before last frost, or direct sow after danger of frost. Plant 18–24" apart. ✿ ③ **NEW!**

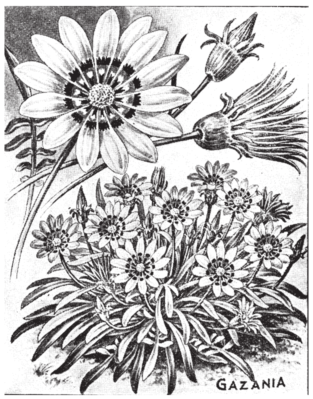
5096 ***A**: 0.25g, $2.95* ***B**: 1g, $4.95* ***C**: 4g, $8.75*

Lorenziana Double Mix *G. pulchella* Annual. This cultivar of a native flower has been around more than a century under different names, but it's a recent discovery for us. The 2–3" quilled florets bloom in an array of red and golden hues on a 1x1' mounded plant. Quite the showstopper, Lorenziana got top ratings for its masses of blooms over a long period of time in Florida trials. In central Maine trials, too. The genus is salt tolerant, drought tolerant, deer proof, and—in the words of a Florida theme-park director—"butt hardy," meaning it can bounce back after people sit on it. Besides people, it also attracts bees, butterflies and birds. ✿ ③

5098 ***A**: 0.25g, $2.75* ***B**: 1g, $4.25* ***C**: 4g, $6.25*

Burgundy *G. aristata. Dropping for lack of demand.*

New Day Formula Mix Gazania *G. rigens* Annual. Open-faced single blooms worship the sun in their daily salutations. Shades of bronze, orange, yellow, mauve, white and sepia all with yellow centers, and some with darkened petal bases, create a dynamic display. Its impressive drought tolerance shined with a steady bloom performance beginning in early July and continuing through the nearly rainless August and September. These easy-to-grow short 8–10" plants with leathery dark green leaves keep tidy along sunny garden edges and are ideal for color in patio containers. Coated seed. About 175–225 seeds/g. ⑤



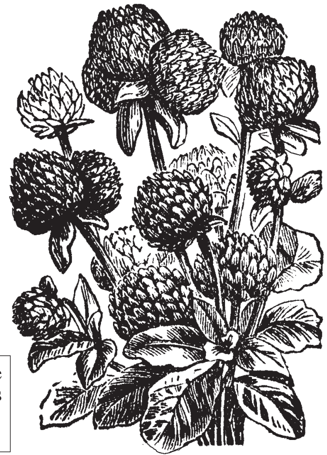
5100 ***A**: 0.1g, $3.55*
***B**: 0.5g, $8.50*
***C**: 2g, $25.00*

GLOBE AMARANTH *Gomphrena globosa*

Annual, everlasting. Beautiful round clover-like 1" flowers on 2' stems perfect for drying. Also enjoyable as bedding plant. We've chosen for earliness, floriferousness, compact habit and good stem length.
Culture: Easily grown in any soil, likes hot sun, blooms prolifically. Tolerates dry weather and some frost. Chill seed 4–6 weeks at 40°, then start indoors at 60–70° for best germination. Germination is erratic; can take from 7–30 days. Grow on at 55–60°. Do not overwater. Transplant in 8–12 weeks, spacing at 12–18". **About 200 seeds/g.**

Las Vegas Purple ②

5102 ***A**: 0.1g, $3.45*
***B**: 0.4g, $7.00*



QIS Red Vibrant strawberry-red profuse blooms. QIS stands for Quality In Seed. Enormously popular with commercial growers. ③

5104 ***A**: 0.1g, $2.50*
***B**: 0.4g, $4.25*
***C**: 1.2g, $6.95*

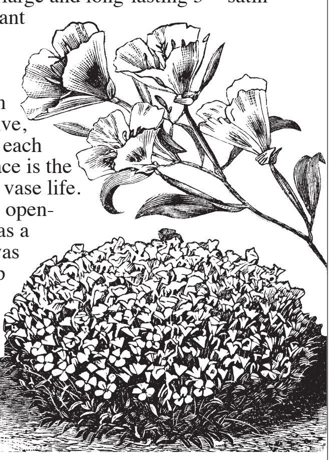
Las Vegas Mix Three vibrant colors: pink, purple and white. ②

5109 ***A**: 0.1g, $3.30*
***B**: 0.4g, $7.15*
***C**: 1.2g, $15.95*

> Thanks for all your services and products, and for your patience with your many many customers of vast ideological attitudes and motivations (wherever we fall on the Nutty Spectrum).
> – Maggie from Shelbyville, IN

Key to symbols (❆ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

Grace Mix Godetia - Organic *Clarkia amoena* (90 days) Annual. Also called Farewell to Spring. Frank Morton, who's growing a lot of flowers these days, calls this Godetia the most beautiful flower in the garden: "It took my breath away." We agree that these large and long-lasting 3" "satin flowers" are vastly underrated. With abundant blooms in red, pink, salmon, lavender and white, and with a bright red patch in the heart of the four petals, they make a lovely addition to the cottage garden. Also great in hanging baskets and pots. They're productive, too, with up to 15 stems on each 30" plant, each producing 5–6 clusters of flowers. And Grace is the best godetia for cutting, with a tremendous vase life. We were curious how Frank could grow an open-pollinated flower that is listed everywhere as a hybrid. His theory is that the initial cross was between closely related species, *C. a.* subsp *amoena* x *C. a.* subsp *whitneyi*, with the resultant color cavalcade continuing to be called a hybrid, even though it remained stable from that point on. And we get to enjoy the result. ①

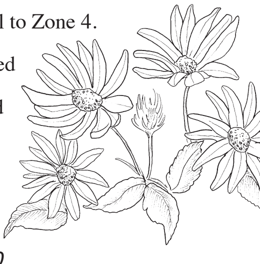


5111 *A: 25 seeds, $3.75*
B: 100 seeds, $9.25
C: 400 seeds, $25.00

Helen's Flower Mix *Helenium autumnale* Perennial to Zone 3. Offered in the past as Sneezeweed. Supposedly used for snuff in earlier times, hence the sneeze. Also known as Sunny Bride. A rich chromatic scale of bronze, brown, crimson and yellow for an end-of-summer display. Single flowers cover the tops of branching upright 4–5' plants and resemble Coreopsis but have a large center "button" like a coneflower. Makes great late-season color. Not fussy, easy to grow, excellent for cutting. At its prime when most perennials have finished blooming. Generally a low germinator; needs 2–3 weeks. About 5,000 seeds/g. ③

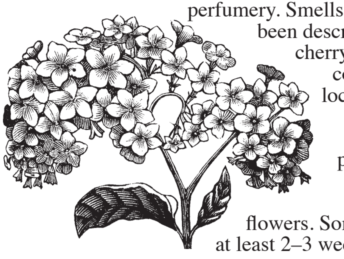
5119 *A: 0.05g, $3.75* *B: 0.2g, $9.95*
C: 1g, $16.00 *D: 2g, $21.50*

Sunburst Heliopsis *Heliopsis scabra*. Perennial to Zone 4. A most unusual heliopsis that sports variegated foliage featuring patterned bright green veins etched against a white background. Masses of bright yellow daisy-like flowers with darker centers stand above the foliage to complete its arresting display. Bushy plant grows slowly the first year to 15–18" but continues up to 4' in subsequent seasons. Donna's first bloom was July 12 from an April 8 start. It was still flowering in October. About 200 seeds/g. ②



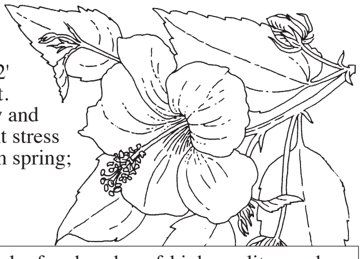
5113 *A: 0.1g, $5.50* *B: 0.4g, $15.00*

Marine Heliotrope *Heliotropium arborescens* (120 days) Tender perennial, Zone 9-10, grown as an annual. Native to Peru, an old-fashioned scented flower with a rich history. The aroma fills the garden on a cool damp day. Victorians edged their rose beds with heliotrope and it is still cultivated in Europe for perfumery. Smells like sweet violet, but deeper, and has been described as similar to vanilla, almond or cherry pie. Works well in hanging baskets, containers, the front of borders or any location where the scent will readily reach you. It may be transplanted indoors for the winter. 14–18" plants with deeply etched viburnum-like dark green leaves bear big flat clusters of tiny star-shaped royal blue flowers. Somewhat slow, erratic germinator, takes at least 2–3 weeks. About 1,500 seeds/g. ③



5116 *A: 0.1g, $2.95* *B: 0.6g, $9.95* *C: 3g, $23.00*

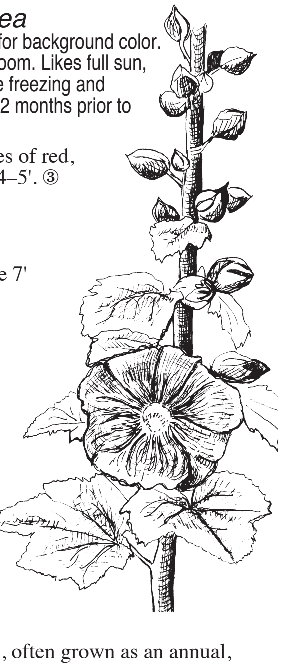
Luna Mix Hibiscus *H. moscheutos* Perennial to Zone 5. We of the foreshortened northern summers need a bit of the extravagant flounce of an hibiscus to put an exclamation point on the season. Luna fits the bill with 6–8" saucer-shaped flowers in a mix of pinks, red and white, with red eyes. Though at 24–36" they are somewhat shorter than many hibiscus, the big bushy 2' wide plants still make a dramatic statement. They have proved themselves winter hardy and become more resilient to water and drought stress once they're established. Slow to emerge in spring; likes full sun. ⑤



5120 *A: 10 seeds, $6.25*
B: 30 seeds, $14.50
C: 120 seeds, $50.00

Thanks for decades of high quality seeds—my nursery depends upon them.
– Mathew from Asheville, NC

HOLLYHOCK *Alcea rosea*



Biennial to Zone 3, often reseeds. An old-time favorite for background color. **Culture:** Needs staking. Cut flower stalk to induce rebloom. Likes full sun, lots of room, and moist soil. Seed may require alternate freezing and thawing to break dormancy. Start indoors in a 70˚ spot 2 months prior to transplanting. **About 70 seeds/g.**

Chater's Double Mix Double flowered in shades of red, pink, yellow and white. Dates back to the 1880s. 4–5'. ③

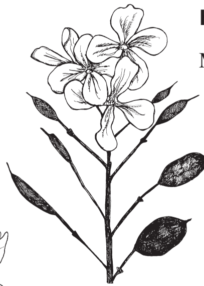
5122 *A: 1g, $3.15*
B: 5g, $5.75
C: 15g, $10.95

Indian Spring Single Mix Old-fashioned single 7' beauty in shades of red, yellow, white and rose. Favored by hummingbirds. 1939 AAS. ✿ ③

5124 *A: 1g, $2.65*
B: 5g, $4.00
C: 15g, $7.50

Black Hollyhock *A. r.* var. *nigra* Heirloom with shimmering burgundy-black single flowers. Lasts 3–4 years in favorable conditions. Surface sow inside in April. Overly rich potting mixes will encourage damping off. May be the same black hollyhock grown for Thomas Jefferson at Monticello. ✿ ③

5127 *A: 1g, $2.95*
B: 5g, $4.95
C: 15g, $8.95

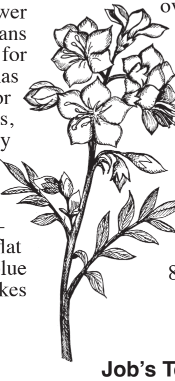


Honesty *Lunaria annua* Biennial, often grown as an annual, for everlasting arrangements. Also known as Silver Dollar, Moneyplant and Moonwort. Would be a solution to economic woes if only its shimmery silver seed pod "coins" were legal tender. Honesty is a winter-hardy biennial with fragrant lavender flowers usually grown for its large coin-shaped seed pods that flash in winter bouquets. Sow indoors at 65–70˚, grow on at 60˚ at night before setting out to a sunny location, or direct sow spring or fall. Depending on conditions, may not flower until second year. 3'. You won't need a *Times* exposé to get to the source of this money! About 50 seeds/g. ③

5132 *A: 1g, $2.95*
B: 14g, $4.95
C: 42g, $7.95

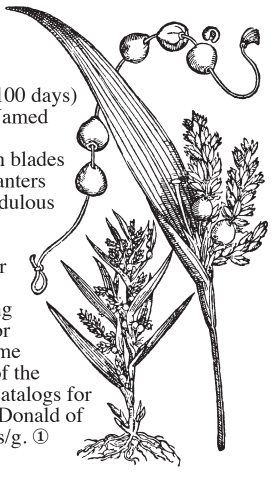
Paradise Mix Impatiens *I. walleriana* F-1 hybrid. Perennial in Zone 10, grown as an annual. Bring a bit of tropical color into your garden with this mix from the Super Elfin series. Lavender, fuchsia, violet and cantaloupe-colored flowers on freely branching 8–10" plants. Impatiens is named for the way its seeds pop explosively out of the ripe pods. Thrives in shade and requires little care. Start indoors, need light so surface-sow, 70-80˚, takes 14 days to germinate, provide even moisture, do not overfeed, set out after danger of frost. Pinch blooms before they go to seed for best display. About 1,100 seeds/g. ⑤

5142 *A: 0.03g, $3.95* *B: 0.15g, $11.50*

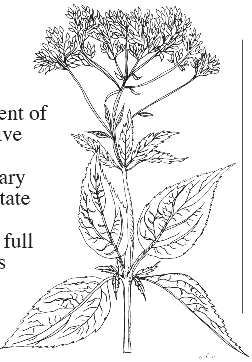


Blue Pearl Jacob's Ladder *Polemonium caeruleum* (90 days) Perennial to Zone 3. A staple of the shade garden in cooler climes. Where so few plants flower, Blue Pearl shines. Sky blue 1–1½" cup-shaped blooms with distinctive gold stamens flower from late spring to early summer except in extreme heat. The long-lived compact 1' plants perform best in partially shaded borders, at the edge of woodlands or at the base of small shrubs or roses. Space 1' apart. Called Jacob's Ladder for the arrangement of parallel leaflets along the stem. Makes a beautiful cutflower. About 850 seeds/g. ③

5144 *A: 0.1g, $2.95*
B: 0.5g, $4.95
C: 2g, $7.95

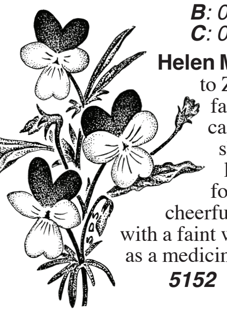


Job's Tears - Organic *Coix lacryma-jobi* (100 days) Perennial in Zone 9-10, grown as an annual. Named for the Greek *coix* which means 'palm,' this ornamental grass's foliage resembles corn with blades up to 1½" wide. Spiky 2–3' stalks good for planters or as filler in dried fall arrangements. Sets pendulous sprays of globular pearly purple-grey seeds, the tears, which may be strung as beads for necklaces. By picking regularly in late summer and fall, Elisabeth gathered about 3 cups of seeds from 8 plants—so many beads! Forgiving and easy to grow. Start indoors in late March or early April. Will self-sow, but may not have time ripen a full crop of seeds. Believed to be one of the oldest grasses in cultivation, featured in seed catalogs for almost two centuries. Our thanks to Alicia McDonald of Whately, MA, who sent us seed. About 5 seeds/g. ①
Check website for availability.



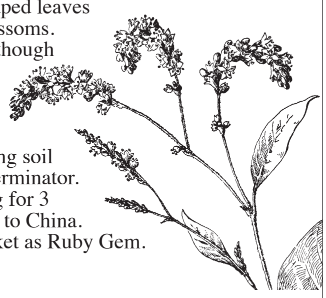
Joe Pye Weed *Eutrochium maculatum* Perennial to Zone 4. Formerly *Eupatorium*. Also known as Queen of the Meadow or Gravel Root. Tall, stately and beautiful native with dense florets of dusty pinkish-purple flowers and foliage that release the scent of vanilla when crushed. At 5–9' tall, makes an impressive background plant and a good cutflower. Medicinally, the root is used to treat chronic irritable bladder, urinary infections, kidney stones, menstrual cramps and prostate infections. Also stimulates circulation and reduces inflammation. Does best in moist well-drained areas, full sun or part shade. Surface sow in spring or fall; needs stratification unless sown in fall; takes 3 weeks to germinate; direct seed or transplant. About 2,800 seeds/g. ✿ ①②

5150 ***A****: 0.02g, $2.95*
B*: 0.1g, $4.75*
C*: 0.4g, $7.25*



Helen Mount Johnny-Jump-Up *Viola tricolor* Perennial to Zone 3. Also known as Heartsease Pansy. This 4–6" favorite bears tricolor blooms in violet, lavender and canary yellow. Small abundant flowers like partial shade. Can be direct seeded early spring for flowers late in season or sown in fall for earlier blooms the following year. Some call it invasive, others enjoy its cheerful spreading habit. Flowers make edible decorations with a faint wintergreen taste. And Heartsease has a long history as a medicinal plant for many conditions. About 900 seeds/g. ③

5152 ***A****: 0.5g, $2.75*
B*: 1.5g, $4.25*
C*: 4.5g, $6.25*



Kiss-Me-over-the-Garden-Gate - Organic *Polygonum orientale* Annual. It is easy to imagine an amorous meeting amongst the shelter of these 6–7' annuals, surrounded by heart-shaped leaves and large tassels of lightly scented pink blossoms. Looks like a beautiful giant Smartweed. Although transplanting temporarily sets it back, it grows vigorously to take up a full square yard at maximum size. Blooms from July to frost, sometimes self-sows. Start indoors at 70–75˚, covering the seed, keeping soil moist till emergence. Fussy, slow, erratic germinator. Germination can be improved by stratifying for 3 weeks. Likes full sun or light shade. Native to China. Offered by Burpee in 1935 for 15¢ per packet as Ruby Gem. About 20 seeds/g. ①

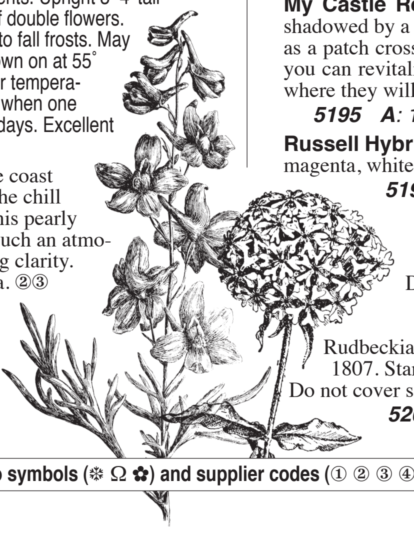
5154 ***A****: 50 seeds, $3.25*
B*: 200 seeds, $5.50*
C*: 500 seeds, $9.95*

White Finch Laceflower - Organic *Orlaya grandiflora* (65-70 days) Annual. Though the bird hails from Australia, with this beauty in your garden, you can add white finches to your backyard annual count. The White Finch flower exhibits a dainty delicacy resembling lace-cap hydrangea, with the central florets of a flat-topped cluster surrounded by a ring of larger flowers that might, poetically, resemble the fluttering of birds' wings. The plant stands tall at 2–3' with ferny foliage and sturdy stems. Deadheading will keep the flowers coming until frost. For long-lasting enjoyment as an airy addition in bouquets, harvest before the pollen starts to shed. When dried, the seed pods can also be arranged to interesting effect. Best direct seeded. Full sun. ①

5157 ***A****: 25 seeds, $3.35* ***B****: 100 seeds, $7.75*
C*: 400 seeds, $16.50*

LARKSPUR *Consolida ajacis*

Annual. Formerly known as *Delphinium consolida*. Delphinium-like long-stemmed flower spikes are used as cutflowers or in dried arrangements. Upright 3–4' tall plants. The Giant Imperial series features long racemes of double flowers. **Culture:** Likes cool moist conditions. Very slow to give in to fall frosts. May be direct seeded in early spring or started indoors and grown on at 55˚ and set out in 8 weeks. Does not germinate well in warmer temperatures. Refrigerating for a week improves germination. Cut when one third of the flowers on the stem are open; vase life is 6–8 days. Excellent for drying. Self-sows readily. **About 330 seeds/g**.

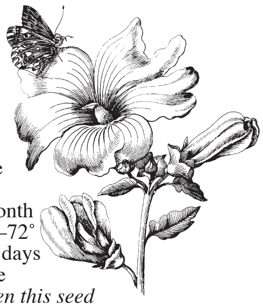


Earl Grey For that kind of cloudy day on the Maine coast when subtle "cool" colors come into their own and the chill invites you to curl up with a cup of Earl Grey tea. This pearly lavender-grey larkspur on tall stalks fits nicely into such an atmosphere, its delicate shades revealing their shimmering clarity. Maybe enjoying them in a bouquet is your cup of tea. ②③

5160 ***A****: 0.1g, $2.85* ***B****: 0.5g, $4.65*
C*: 3g, $10.95*

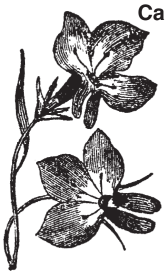
Giant Imperial Blue Spire Dark blue. ③
Check website for availability.

Giant Imperial Mixed Pinks, purples, blues and white make a beautiful background and are good for cutting. ② *Check website for availability.*



Lavatera Mix *L. trimestris* Annual. Also known as Herb Treemallow. Every stalk is covered with single funnel-shaped blossoms. An explosion of exotic blooms in mostly pink shades, some light and some dark, and the remainder white, on 2' tall bushy plants, great for borders. Cut when flowers are unfurling or have just begun to bloom. Vase life is at least one week. Will survive light fall frosts. Botanical name honors 16th-c. Swiss naturalist brothers Lavater, and its three-month bloom time in warmer climes. Start indoors at 70–72˚ 8 weeks before setting out, growing on at 65–70˚ days and 60˚ nights, or direct seed in sunny spot. Space 18–24". About 150 seeds/g. ② *We're not sure when this seed will arrive at our warehouse. Check website for availability.*

Lavender: see p. 88.

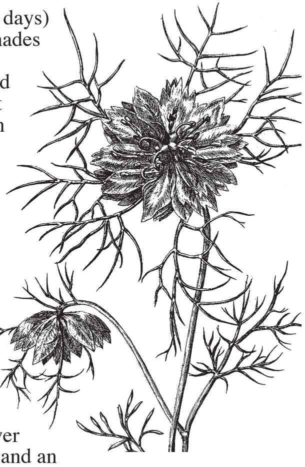


Cascade Mix Lobelia *L. pendula* (60 days) Annual. A waterfall of reds, blues and whites to grace your garden, window boxes and hanging baskets. Very uniform tiny lush flowers bloom continuously from early summer to early fall. Trailing habit, 6–8" long. If you liked Crystal Palace Blue, you should try this mix. Full sun, can tolerate some shade. Sow indoors 8–10 weeks before last frost. Ideal germ temp is 60–70°. ③ **NEW!** *We're not sure when this new seed crop will arrive. Check website for availability.*

Crystal Palace Blue Lobelia *L. erinus. Dropped. Try Cascade Mix!*

LOVE-IN-A-MIST *Nigella* spp.

Annual. Everlasting grown especially for its spiky decorative seed pods. Germinates 10–14 days at 60˚. Grow on at 60–65˚. Set transplants 6–9" apart.



Persian Jewels Mix *N. damascena* (70 days) Profuse blooms in pink, blue and white shades surrounded by a cloud of greenery make lovely bouquets. Seed heads are used dried and are especially fetching with a little bit of the flower attached. Direct seed as soon as ground can be worked, or sow indoors in a cool spot 2 months prior to setting out. Plant in full sun. 18". About 420 seeds/g. ②③

5184 ***A****: 0.4g, $2.45*
B*: 2g, $4.25*
C*: 14g, $12.00*

Exotic *N. hispanica* Exotic's golden-brown pods are similar to velvetleaf's wonderful starry seed pods except with long fancy tendrils. Will add interest and volume to any dried arrangement. Unlike velvetleaf, this annual won't be a nuisance in the field. Doubles as a cutflower with open form, striking maroon stamens and an arresting shade of deep blue, almost purple. Atop 16" stems, the blossoms hold longer in a bouquet than other kinds of Love-in-a-Mist. Likes full sun or light shade. About 900 seeds/g. ③

5187 ***A****: 0.1g, $2.75* ***B****: 0.4g, $5.00* ***C****: 2g, $12.50*

LUPINE *Lupinus polyphyllus*

Perennial to Zone 4. Lupine fanatic George Russell of York, England, bred Russell Hybrids Choice Mix, introduced it in 1937 and won the coveted Gold Medal from the Royal Horticultural Society. Dense spikes with large flowers in full range of colors. **Culture:** Likes a cool moist spot in full sun, preferring sandy soil with ample room for its roots to spread. Can be sown indoors in late winter, or outdoors in early spring or late fall. 3'. Seeds and seed pods are poisonous. **About 35 seeds/g.**

My Castle Red Russell In most lupine mixes the red shades are overshadowed by a preponderance of blues. The genetics of lupines are such that, as a patch crosses and self-sows, over time the blues will dominate. So now you can revitalize your patch with a new burst of red. Or, grown separately where they will not cross, you can maintain a solely red patch. ③

5195 ***A****: 1g, $2.95* ***B****: 4g, $5.75* ***C****: 16g, $9.25*

Russell Hybrids Choice Mix Mostly purple blooms with some bicolors in magenta, white and pink. ②③

5199 ***A****: 1.4g, $3.25* ***B****: 7g, $4.95*
C*: 28g, $8.75*

Maltese Cross *Lychnis chalcedonica* Perennial to Zone 3. Desirable 3' border plant attracts hummingbirds and butterflies by producing brilliant scarlet florets, each a five-part cross. Excellent for cutflowers. Makes a hot color combination with Rudbeckia and Coreopsis. Grown for Thomas Jefferson at Monticello in 1807. Start indoors in early spring or midsummer for blooms next year. Do not cover seeds. Likes moist soil and full sun. About 2,000 seeds/g. ✿ ③

5203 ***A****: 0.4g, $2.75* ***B****: 2g, $3.75*
C*: 6g, $5.95* ***D****: 18g, $8.95*

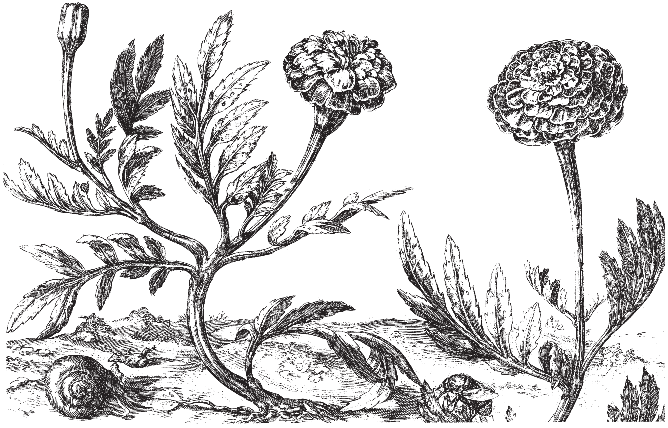
Key to symbols (❆ Ω ✿) and supplier codes (① ② ③ ④ ⑤) on page 4.

MARIGOLD *Tagetes* spp.

Annual. "We do not consider a flower garden complete without the good old-fashioned French and African marigolds." –Breck's, 1885. Good for bedding, for cuts, in planters or borders. Their warm colors cheer all summer long and positively blaze in the light of early autumn. Native to the Americas and said to have been sacred to the Aztecs; still play a vital role in celebrations of Día de los Muertos. In 1939 Burpee's Red and Gold hybrid was the first hybrid flower from seed offered commercially in the United States.

Strong scent repels garden pests, so try interplanting with your vegetables.

Culture: Fast and easy to grow from seed. Sow after soil has warmed, or inside in a warm (75–80˚) spot, 3 weeks before setting out after danger of frost. Likes heat and full sun. Tolerant to drought. **About 280 seeds/g** except Signets.



AFRICAN MARIGOLD *T. erecta*

Tallest of the marigolds with largest leaves and flowers. Blooms are fully double and 3–4" across, resembling carnations. Plants make a bold highlight in large borders and crank out cuts.

Crackerjack Mix Early mix of orange, gold, yellow. Large fully double flowers on tall 30" plants that rarely need staking. ②③

***5211 A**: 1g, $2.50 **B**: 14g, $4.25 **C**: 56g, $8.25*

Marvel II Mix (60 days) F-1 hybrid. Fully double 4" pompon blooms in gold, orange and yellow are perfect for stringing into garlands. Early to bloom. Sturdy 18" plants with excellent branching habit do not need support. ⑤

***5212 A**: 0.05g, $4.00 **B**: 0.2g, $10.00 **C**: 0.6g, $20.00*

First Lady *Dropped by our supplier.*

Inca II Mix *Dropping all ⑥ suppliers. See page 5. Try **5212** Marvel II Mix!*

Vanilla *Dropped by our supplier. Not available in 2024.*

FRENCH MARIGOLD *T. patula*

Small bushy plants with flowers approximately 2" across in a wide range of colors including yellows, oranges, rich reds, mahogany and bicolors. Bloom styles, depending on the cultivar, can be single, crested, semi-double or fully double. Outstanding edging plants bloom early summer till frost and stand well in all weather.

Bambino This darling's variegated petals of dark and light orange swirl around an orange center button, giving the effect of a tiny circus tent. Plentiful 2½" single-petaled flowers set early on a semi-mounded 8" bush. Blooms strong until frost, championing orange in the garden till the pumpkins take over. ③

***5222 A**: 0.5g, $2.95 **B**: 2.5g, $5.25 **C**: 15g, $15.00*

Brocade Mix Abundant color on neat, compact 10" plants. Ruffled double flowers in rust, yellow, orange, red and bicolors. ③

***5224 A**: 0.5g, $2.95 **B**: 7g, $4.45 **C**: 28g, $8.25*

Court Jester (100 days) It's worth juggling garden space to make room for this jester, whose bright stripes of burgundy and yellow will keep you entertained into the fall. Many small single flowers dance atop a 20" tall plant and make alluring additions to bouquets as well. ③

***5226 A**: 1g, $2.95 **B**: 3g, $4.95 **C**: 9g, $8.95*

Lemondrop A beautiful true yellow extra-dwarf crested variety. Blooms early, through summer into fall. Only 6–8" tall. ③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Queen Sophia (60 days) Award-winning anemone-flowered dwarf. Each plant produces many bicolored double blooms. Flowers are deep rusty orange and, as they mature, petals are edged with gold. Named for Queen Sofia of Spain. 1979 AAS, later voted second-most popular AAS flower. 10–12". ③

***5231 A**: 0.7g, $3.15 **B**: 3.5g, $7.50 **C**: 14g, $13.25*

Sparky Mix Yellow, gold, orange and red blooms on free-flowering compact 10–12" plants. Double flowers are 2–2½" wide with smoother petals than Brocade. Darold Decker intro from the late '50s.②③

***5235 A**: 1g, $2.75 **B**: 7g, $4.50 **C**: 28g, $6.75*

SIGNET MARIGOLD *T. tenuifolia*

Also known as Gems, once known as Mexican marigolds, date back to 1798. Bloom prolifically with edible 3/4" single flowers with yellow centers and a citrusy fragrance. Compact mounded plants have finely cut ferny foliage. They don't need deadheading, but benefit from a light shearing in hot weather and from watering in dry spells. **About 1,000 seeds/g.**

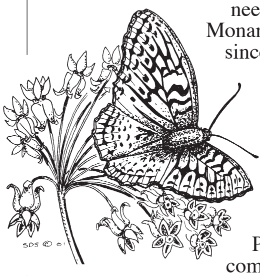
Lemon Gem (68 days) Compact 10–12" plant bears tiny bright lemon-yellow flowers early, through summer, into fall. ③

***5243 A**: 0.5g, $6.50 **B**: 1.5g, $11.00*
***C**: 6g, $30.00 **D**: 24g, $90.00*

Tangerine Gem (68 days) As above, but the tiny fragrant flowers are deep orange. They make colorful tasty additions to salads. ③ *We're not sure when this seed crop will arrive at our warehouse. Check website for availability.*

Mignonette *Reseda odorata* Annual. "Mignonette should not be forgotten, on account of its delicious odor." –Breck's, 1885. Once fashionable on the balconies of Paris, popular enough to command 7 listings in Burpee's 1935 catalog. Among the most fragrant, and beloved by honeybees, its insignificant yellow-green blossoms send the enticing scent of raspberries wafting through the air. Less than a foot high, it can be grown in pots and moved for best effect; however, its scent will fade if it is removed from full-day sun. Direct seed; do not cover. Make succession plantings for continuous blooms. Prefers fertile well-drained soil and cool weather. Burpee claimed a light sandy soil brings out its most pronounced perfume. About 750 seeds/g. ✿ ③

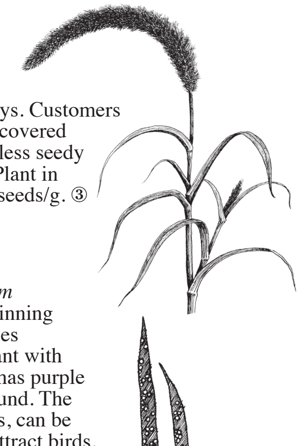
***5255 A**: 1g, $2.50 **B**: 4g, $4.25*
***C**: 16g, $6.95 **D**: 64g, $14.95*



Milkweed *Asclepias syriaca* Perennial to Zone 4. These 5' tall showy perennial native wildflowers are an important member of the wild habitat, needing a little help from humans as we work to keep the Monarch well fed and abundant—Monarch butterfly, that is, since milkweed is the most abundant food source for their caterpillars. Moreover, 450 other insects are known to feed on some part of the plant as well. Can be toxic to some other critters, and the bitter taste will prevent voracity unless there is nothing else to eat. For humans, the flower buds battered and fried as tempura are a treat. Buds open to large balls of sweetly fragrant pink flowers. When the pods split open in the fall, seeds fly by impossibly soft silks. Prefers full sun. Needs periodic disturbance in order to compete with surrounding vegetation. ✿ ②③

***5256 A**: 0.5g, $3.50 **B**: 2g, $8.25 **C**: 6g, $18.50*

ORNAMENTAL MILLET

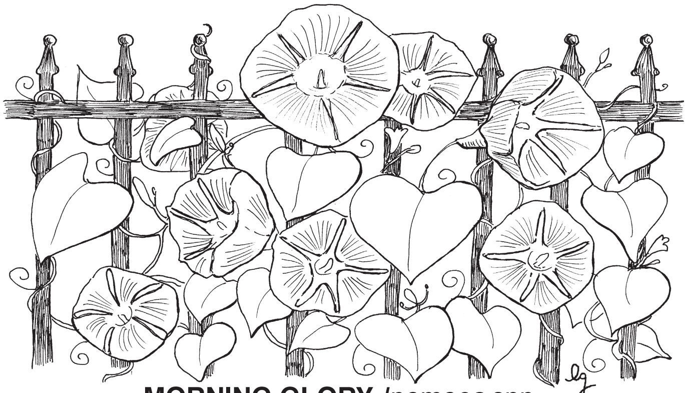


Foxtail Millet *Setaria italica* Annual. Its graceful 3–6" golden seedheads bobbing on an August breeze attract attention even before harvest. After harvest, Foxtail Millet makes a striking counterpoint in floral displays. Customers ask for this specific strain because its heads, covered with golden-russet hairs, are softer and look less seedy than other types. Formerly *S. macrochaeta*. Plant in June, harvest mid to late August. About 450 seeds/g. ③

***5257 A**: 1g, $3.75*
***B**: 4g, $7.25*
***C**: 28g, $29.00*

Purple Majesty Millet *Pennisetum glaucum* (120 days) Annual. This 2003 AAS award-winning pearl millet accelerated the ornamental-grasses trend. Distinguished 3–5' tall background plant with deep-purple, almost black, corn-like foliage has purple seed spikes nearly a foot tall and an inch around. The immature plumes, looking like purple cattails, can be used in arrangements or left on the plant to attract birds. Tolerates hot dry weather, likes sun and can be cultured like sunflowers. Pamela and Frank Arnosky, in *Growing for Market*, reported that it was a sensational seller. However, they cautioned that some cuts left in their packing shed for a few days turned solid yellow with pollen that had an odor like burnt antifreeze. They advised cutting the spikes immature, just as they emerge from the last leaf, to circumvent the pollen. With all the hype, the seed is exorbitantly expensive, so we pack by seed count. ⑤

***5259 A**: 6 seeds, $3.75*
***B**: 24 seeds, $9.50*
***C**: 72 seeds, $23.00*



MORNING GLORY *Ipomoea* spp.

Annual. Easily grown climber with trumpet-shaped flowers provides color and shade, decorates fence or post.

Culture: Plant with eastern exposure for best results. Nick the seeds with a file and soak overnight to speed germination. Germinates in 2 weeks at 75–80˚. Sow outdoors after danger of frost or indoors in peat pots as they resent transplanting. Overly rich soil will yield excess foliage and sparse blooms. **About 25 seeds/g.**

Flying Saucers *I. nil* Seedsman Darold Decker created these 4" open bicolor trumpets just three years after the Russians sent Sputnik into orbit. This strain has strayed from its original swirly patterning and now has mostly sky blue blooms with random white streaking, and some white blooms with patterned blue stripes. Climbing vine grows 8–10'. ③

5271 ***A**: 1.5g, $2.25* ***B**: 6g, $4.50*
***C**: 18g, $8.95* ***D**: 54g, $19.95*

Sunrise Serenade *I. n.* A recently rediscovered heirloom double morning glory. Large arresting 1–3" ruby-red blooms with frilly slightly wavy extra petals and white throats. Vigorous 12–15' plant needs to be tied up in order to "climb." Flowers contrast nicely with the heart-shaped green leaves. Often the first morning glory to bloom, also stays open longer than the singles. Packet has about 11–12 seeds. ②

5274 ***A**: 0.3g, $2.95* ***B**: 1.2g, $7.25* ***C**: 6g, $15.25*

Carnevale di Venezia Striped Mix *I. purpurea* Vigorous 6' climbers bear masses of celebratory white trumpet flowers, some with blue stripes, some with pink, and some other bicolors, in a festive array of patterns. Each vine bears only one color scheme, so plant several for the full dramatic effect. ③ **NEW!**

5276 ***A**: 1g, $3.15* ***B**: 3g, $7.45* ***C**: 15g, $16.00*

Kniola's Purple - Organic *I. p.* (50 days) Glowing rich deep purple flowers vibrate against lush green foliage. Unlike most other morning glories, Kniola's starts blooming while it is only 2' tall and still vining. As the vines climb on to 8–9', the blooms continue, lasting the entire season. The deep flowers have a magenta star that radiates out from their pale pink-white throats. An heirloom discovered by Mr. Kniola at an abandoned farm in Indiana. Nicholas Lindholm acquired seed from J.L. Hudson in 1993, thence passed it on to Roberta Bailey who has been maintaining it. ①

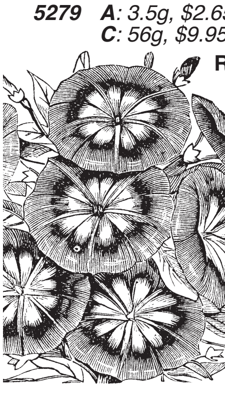
5277 ***A**: 0.5g, $4.50* ***B**: 2g, $12.00* ***C**: 4g, $18.00*

Grandpa Ott's *I. p.* (70 days) This variety could be considered the seed that sprouted a thousand seed savers. When Diane Ott Whealy's grandfather gave her seeds of this Bavarian heirloom and died shortly thereafter, she felt responsible for keeping it going. With her then-husband Kent Whealy, she cofounded Seed Savers Exchange, which has since grown to a collection of more than 20,000 varieties. This foundational flower deserves to be saved: beautiful glowing rich deep purple bloom with a glowing magenta center and dark 5-pointed star pattern. Similar to Kniola's Purple, but with a later initial bloom time. Climbs at least 8–9' with trellising, and will self-sow but not aggressively. Seed purchased from Diane's son. ②③

5278 ***A**: 1.5g, $2.95* ***B**: 6g, $6.95* ***C**: 18g, $14.95*

Clarke's Heavenly Blue *I. tricolor* (115 days) Classic morning glory. Intense azure blooms lighten toward center; a sun-loving vine. 12'. ②③

5279 ***A**: 3.5g, $2.65* ***B**: 14g, $4.65*
***C**: 56g, $9.95* ***D**: 448g, $34.00*



Royal Ensign Bush Morning Glory *Convolvulus tricolor* (50 days) Annual. This bush morning glory charmed us in our 2023 flower trials! Shapely 18" tall bushes (that's right, no trellising required!) are covered in blooms all summer. Each 2" trumpet appears hand painted, with royal blue exteriors and iridescent white-to-gold centers. Eye-catching in beds, borders and pots. If plants get leggy midsummer, shear them halfway back for abundant reblooms. Direct seed after danger of frost, or start indoors 4–6 before last frost. Space 6–8" apart in full sun. ③ **NEW!** *We're not sure when this new seed crop will arrive at our warehouse. Check website for availability.*

NASTURTIUM *Tropaeolum* spp.

Annual. The name literally means 'twisted nose,' from the Latin *nasus* for nose and *tortus* for twist. Edible flowers with spicy sweet fragrance lend a peppery-sweet taste to salads, with each color adding contrast and subtle variations in flavor. Round leaves also edible, and seeds can be pickled to make "capers." Formerly used as a remedy against scurvy.

Culture: Blooms keep coming if cut, needs moisture and cool temperatures for optimal blooming. Intolerant of frost. Germinates 7–10 days at 65˚. Cover the seed. Avoid excess nitrogen, but don't relegate nasties to the worst soil. Likes full sun. Start indoors or direct seed after last frost. **About 6 seeds/g.**

Alaska Mix *T. majus* (60 days) Striking variegated green and white foliage will make a formidable bush if you feed it heavily. But go easy on the nitrogen if you want to eat lots of its tangy yellow and orange blossoms. A great plant for hanging baskets. 16". ②

5280 ***A**: 25 seeds, $2.50* ***B**: 100 seeds, $3.95*
***C**: 500 seeds, $6.95* ***D**: 3,000 seeds, $35.50*

Cherrelle *T. majus* (60 days) Frilled cherry-red blossoms with yellow centers boldly contrast with vivid green foliage. An absolute dream spilling over from window boxes and hanging baskets. Grows 12" tall and can trail 3'. ③

5281 ***A**: 25 seeds, $3.15* ***B**: 100 seeds, $7.30*
***C**: 500 seeds, $19.95* ***D**: 3000 seeds, $99.00*

Empress of India *T. majus* (60 days) Hailed as a "great novelty" when introduced in 1884, and still popular today. Dark purplish-green leaves and stems make a perfect background for the spicy-hot brilliant crimson-scarlet flowers that stand out in bold relief. A good contrast with other nasturtium varieties. Do not feed heavily. 16" plants. ②③

5282 ***A**: 25 seeds, $2.75* ***B**: 100 seeds, $4.25*
***C**: 500 seeds, $8.95* ***D**: 3,000 seeds, $42.00*

Cream Troika *T. majus* (65 days) Spice up your next butter board or salad with these creamy-yellow flowers with rich brown centers. Plants mound to about 12" before spilling over and trailing up to 3'. ③

5283 ***A**: 25 seeds, $3.25* ***B**: 100 seeds, $5.95*
***C**: 500 seeds, $22.00* ***D**: 3,000 seeds, $98.00*

Jewel Mix *T. majus* (42 days) Bushy variety holds its blooms above the foliage. Early free-flowering blend of orange, yellow, red and gold. Long our best-selling flower variety, it has now been relegated to second place by our sunflower mix. 16".

Jewel Mix ②③

5288 ***A**: 25 seeds, $2.55* ***B**: 100 seeds, $4.75*
***C**: 500 seeds, $9.85* ***D**: 3,000 seeds, $36.00*

Jewel Mix - Organic ③ **BACK!**

5289 ***A**: 25 seeds, $4.95* ***B**: 100 seeds, $14.85*
***C**: 500 seeds, $48.00* ***D**: 3,000 seeds, $135.00*

Tall Climbing Mix *T. majus* (65 days) Tall trailing mix to 4–6' in red, orange, gold and exquisite bicolor shades. Plants will spread and fill in a huge space but having no tendrils cannot, strictly speaking, climb. The most prolific blossom set of any of the nasturtiums we have tried. ②③

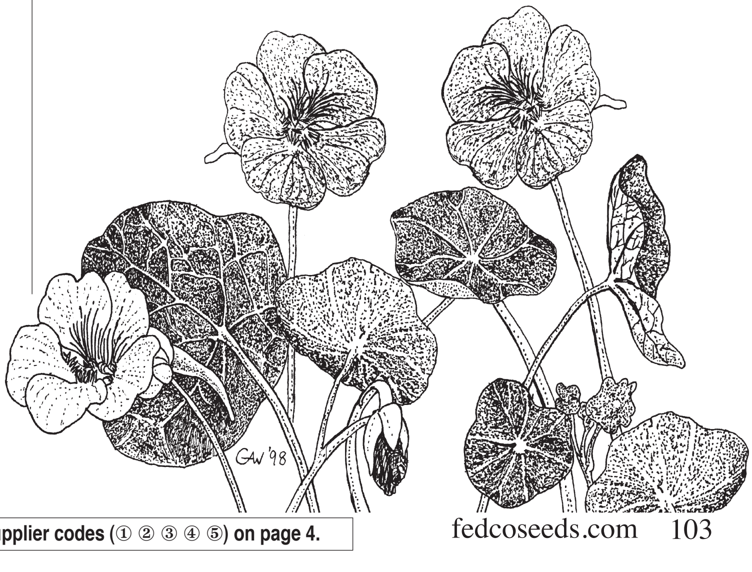
5291 ***A**: 25 seeds, $2.50* ***B**: 100 seeds, $5.50*
***C**: 500 seeds, $9.25* ***D**: 3,000 seeds, $31.00*

Peach Melba *T. minus* (60 days) Primrose-cream blossoms with pearly red centers look like miniature cut peaches with dollops of raspberry sauce. Sets its abundant blooms above the compact lily-pad foliage. ②

5293 ***A**: 25 seeds, $2.85* ***B**: 100 seeds, $5.95*
***C**: 500 seeds, $12.75* ***D**: 3,000 seeds, $29.00*

Whirlybird 7-Color Blend *T. majus* (60 days) Has large spurless upward-facing flowers borne above the foliage. Compact non-trailing plant habit. Recommended for commercial growers. 12" plants. ③

5295 ***A**: 25 seeds, $2.75* ***B**: 100 seeds, $4.95*
***C**: 500 seeds, $14.95* ***D**: 3,000 seeds, $64.00*

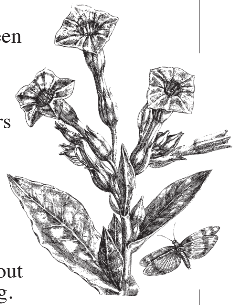


NICOTIANA spp.

These are not smoking tobaccos.

Only the Lonely - Organic *N. sylvestris* Annual. Also known as Woodland Tobacco, featuring clusters of drooping tubular white blossoms that perfume the garden day and night. Lonely, a stately 5', delivers the full powerful scent that dwarf nicotianas lack. Plant it near a door or window where you can enjoy the aroma during the night. Germination is 10–12 days at 65–70°. Light enhances germination. Grow on at 50–55°. About 29,000 seeds/g. ①

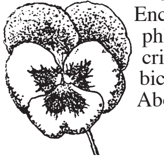
5300 ***A****: 1g, $2.95* ***B****: 4g, $5.75* ***C****: 16g, $18.00*



Lime Green *N. alata* (70-80 days) Annual. While **5300** Only The Lonely is dramatic and fragrant, Lime Green exhibits a petite delicate beauty that can enhance a garden bed planting or stand alone in a pot. Elegant abundant upward-facing 2" star-shaped light chartreuse flowers upon 3' plants of contrasting green. Lightly scented flowers open in late afternoon and evening, early summer to early fall. Nice straight stems. Cutflowers may be too fragile for commercial growers, but perfect for casual home bouquets. Low maintenance, does well in full sun and partial shade. A favorite of hummingbirds. Self-sows. Sow indoors 6–8 weeks before last frost, or directly into the garden after danger of frost. Press seeds into soil without covering. Can easily bloom within 10–12 weeks of sowing. Occasional off-types with maroon or white flowers are possible. 6,000 seed/g. ②③

5301 ***A****: 0.1g, $2.50* ***B****: 1.2g, $6.75* ***C****: 6g, $19.00*

PANSY *Viola* spp.



Annual or short-lived perennial. Burpee's in 1888 called the pansy "the most popular of all flowers grown from seed," and sold more than 100,000 packets per year. James Vick's Sons sold 27 different kinds and mixtures in 1895. For thoughts, remembrance, from the French *pensée*.

Culture: Old-fashioned bedding plant thrives in cool moist conditions. Among the first to revive in spring. Start in a cool (60–65°) place 2 months prior to planting. Cover seed to germinate. Takes about 12 days. Grow on in very cool temperatures—preferably below 50°. Likes partial sun. **About 580 seeds/g.**

See p. 101 for **5152** Johnny-Jump-Up, *V. tricolor.*

Brush Strokes *V. cornuta* As if an artist had taken a fine brush to paint delicate bright stripes on its palette of solid colors. Purple, pink, yellow and light blue striped with white and yellow strokes. Donna Dyrek's blossomed July 1 from an April 8 start. Dwarf 6" plants with large fragrant faces. ②

5305 ***A****: 0.02g, $3.25*

Frizzle Sizzle *V.* x *wittrockiana* Perennial to Zone 6. After a drear mud season, put a little razzle-dazzle in your spring and early summer garden. Mounded 4–6" plants with heart-shaped leaves are covered with a splendid panoply of 3" mostly bicolor flowers, with darker whiskers and yellow eyes to dress up their array—in lemonade, orange, raspberry, blue, yellows, and white. Just imagine these edible lightly fragrant beauties on a salad. In colder zones, straw mulch will help them overwinter. ⑤

5308 ***A****: 0.02g, $4.00* ***B****: 0.1g, $13.00* ***C****: 0.4g, $30.00*

PETUNIA *P.* x *hybrida*

Annual. "If I were limited to one flower with which to decorate my home I would choose Petunias." –Park's Flower Book, 1934.

Culture: Start indoors at 70–75° and grow on at same temperature for 8 weeks before setting out after danger of frost. Do not cover seeds; light aids germination. Use loose medium and avoid overwatering. Drought-tolerant sun lovers. **About 10,000 seeds/g.**

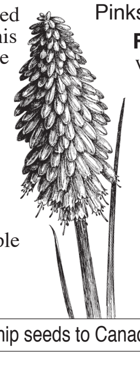
Daddy Mix F-1 hybrid. Very showy grandiflora has big 4" ruffled blooms in shades of light blue, orchid, peppermint, pink, plum and strawberry with darker veins. Stunning in baskets, these uniform plants also exhibit good weather-tolerance when planted in full sun. 12–15". ⑤

5321 ***A****: 0.03g, $4.95* ***B****: 0.12g, $14.95*

Wave® Series Spreading Petunia

Slightly mounded plant carpets the ground with a 4x4' spread of vivid color. Versatile, as a low hedge, a ground cover, or trailing from pots. Wave showed extreme drought tolerance in our trial, sailed through light frost, and bounced back after torrential rain. Although never deadheaded or cut back, the 3" flowers just kept coming and coming.

Culture: Plant in full sun where its robust performance and light fragrance can sweep you away.



Easy Wave Blue Improved F-1 hybrid. Improved to be more rounded with more branching and even more flowers in the center of the plant. This variety also blooms earlier, with only 9.5 hours of daylight, compared to the 10 hours needed by the original version. ⑤ **IMPROVED!**

5324 ***A****: 10 seeds, $4.95* ***B****: 40 seeds, $14.95*

Wave Pink F-1 hybrid. Pink, with white throats. ⑤

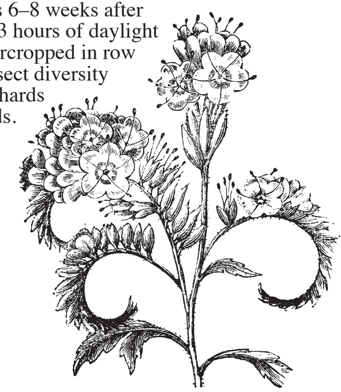
5325 ***A****: 10 seeds, $3.95* ***B****: 40 seeds, $12.95*

Wave Purple Classic F-1 hybrid. Vivid fuchsia. 1995 AAS. ⑤

5326 ***A****: 10 seeds, $3.95* ***B****: 40 seeds, $12.95*

Tidal Wave Silver F-1 hybrid. Despite its name, more a very pale purple than silver, with darker purple veining. 2002 AAS. ⑤

5328 ***A****: 10 seeds, $3.95* ***B****: 40 seeds, $12.95*



Phacelia *P. tanacetifolia* Annual. Also called Fiddleneck. The small frizzy curling lavender-blue sprays of this bushy 18–30" annual bloom for two months and provide high-quality pollen and nectar, making it a most popular insectary plant for honeybees, bumblebees and syrphid flies. Phacelia honey is clear and delicate. Flowering begins 6–8 weeks after germination, though the plant needs 13 hours of daylight to bloom. Used as a cover crop or intercropped in row plantings, it can increase beneficial insect diversity and populations in gardens, fields, orchards and vineyards while suppressing weeds. It winterkills at 18° and can be turned under. Feathery leaves look similar to Sweet Cicely. Seed will germinate in cold soils. Thrives in dry to moist soils. About 280 seeds/g. ✿

Phacelia ②

5330 ***A****: 1g, $2.75*
B*: 4g, $5.00*

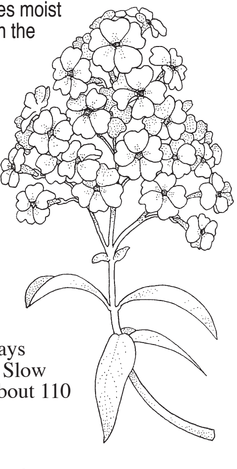
Phacelia - Organic ① **BACK!**

5331 ***A****: 1g, $2.95*
B*: 4g, $5.65*
C*: 20g, $12.00*

PHLOX spp.

Breck's sold 15 different kinds in 1885. The word phlox signifies 'a flame.' Phlox is among the most colorful flowers for summer and fall beds, borders or pots.

Culture: Start early indoors or direct sow in spring. Likes moist well-drained soil in full sun. One of the longest lasting in the vase. About the last to succumb to frost.

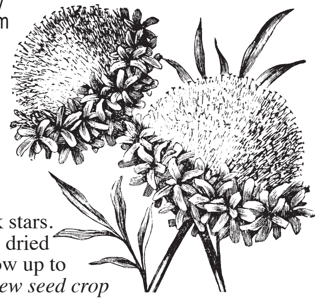


Drummondii Mix *P. drummondii* Annual. Enchanting fragrance from this 24" sprawling phlox with large umbels full of blooms in crimson, scarlet, pink, white, lavender, and bicolor combinations with dark and white eyes. About 500 seeds/g. ③

5335 ***A****: 0.4g, $3.00*
B*: 2g, $4.75*
C*: 8g, $7.95*

New Hybrids Mix *P. paniculata* F-1 hybrid. Perennial to Zone 3. Blooms from June till frost. Excellent for borders and cutflowers. Mix of white, pinks, reds and lilacs. Freeze seeds 10 days before sowing indoors, or direct seed in cold soil. Slow germinator, takes 3–4 weeks. Likes full sun. 3'. About 110 seeds/g. ② *Check website for availability.*

PINCUSHION FLOWER *Scabiosa* spp.



Annual. Old-fashioned and underrated, beloved by bees and flower arrangers. The Genus comes from the Latin *scabies*, meaning 'itch,' referring to the rough leaves.

Culture: Chill seed for a week, then sow indoors, covering seed lightly, 4–5 weeks before last frost. Transplant 12" apart after danger of frost.

Starflower *S. stellata* (90 days) Delicate periwinkle flowers with silvery centers pass by into ethereal bronze globes of transparent seedheads that are studded with distinct black stars. These papery pods add texture and interest to dried and fresh arrangements. Branching plants grow up to 30" tall. ③ **NEW!** *We're not sure when this new seed crop will arrive at our warehouse. Check website for availability.*

QIS Formula Mix *S. atropurpurea* These quilly beauties are perfect for cuts, each 2" bloom is a rounded mass of tiny florets on a long wiry stem. Harvest when blossoms are almost fully open. Also excellent for drying. Formula mix is nicely balanced, featuring purple, lavender, red, pink, white and almost-maroon. About 150 seeds/g. ③

5341 ***A****: 50 seeds, $2.75* ***B****: 200 seeds, $4.50*
C*: 500 seeds, $8.75*

Pinks: See Dianthus, p. 98.

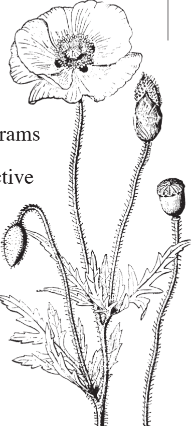
Flamenco Red Hot Poker *Kniphofia uvaria* Perennial to Zone 5. You won't need a casino to get into this game of poker. If you get your thrills from hot colors rather than hot hands, this Red Hot Poker is no gamble at all. Our ante is only $2.75 and there will be many winners. It will flower the first year up to four weeks earlier than other standard varieties, setting spectacular 8" spikes atop sturdy 32" stems, in a riot of yellow, orange and fiery red tubular flowers. A field of these along the road can take your breath away. Blooms July-September and makes an unusual accent in cutflower arrangements. Likes well-drained sunny locations. Space at 18–24". For overwintering, mulch to protect the crowns from moisture and heaving. 1999 AAS. About 450 seeds/g. ②

5343 ***A****: 15 seeds, $2.75* ***B****: 45 seeds, $4.50*
C*: 90 seeds, $8.00*

POPPY *Papaver* spp.

Annual. Sensuous luxurious flowers, about $2^{1}/_{2}$–3' tall. Elka is especially suitable for baking. Poppies make wondrous cutflowers: choose buds that have straightened up but not quite opened. Immediately sear the cut stem with a flame and put in water. Poppies open after several hours—an austere bouquet in the evening can become a riot of colors the next morning.

Culture: Need light to germinate. Sow outside in spring after frost or sow in fall for early blooms the following summer. Thin to 9–12". Like full sun. Will self sow. **About 1,400–4,500 seeds/g.**



Elka - Organic An unusual double-purpose poppy sporting enormous seed heads up to $1^{1}/_{2}$" wide and 2" high in good years, somewhat smaller in drought. The heads are unvented, so the seed is not broadcast. From Chrenovec in central Slovakia, where families used to grow both the black Breadseed poppy and white-seeded Elka, and collect 50 kilograms of each for a year's cooking. When walnuts became widely available in stores, Elka almost disappeared. Lacks the distinctive flavor of the Breadseed variety but sweeter, nuttier, none of the bitterness, and over 50% more oil content, making perhaps the best edible oil in central Europe. Staffer Emily Skrobis tested three different batches of poppyseed filling in making *hamantaschen* and loved Elka the best. Plants grow 4' with white-lavender single blossoms, like calcium-rich soil, don't transplant well. For best results thin to at least 5–6" apart. Some folks tie a group of plants together for support against wind breakage. Isolate from other poppies by at least 250' if you wish to save seed. ❦1995. ✿ ①

5350 ***A**: 0.1g, $2.50* ***B**: 0.3g, $4.50*
***C**: 1.2g, $6.95* ***D**: 6g, $14.95*

Ziar Breadseed - Organic *Not available. We're working on it!*

Black Peony We'd seen poppies in a lot of different colors, but never one like this fully double ruffled flower of the deepest purple, almost black. Strong tall stems. 2'. ③ *Check website for availability.*

Danish Flag According to legend, Denmark's flag came from the sky to King Valdemar II in 1219. The origins of the Dannebrog or Danish Flag poppy predate 1888. Flag is named for the white spots at the base of the petals that form a cross in the center of the brilliant scarlet flowers somewhat mimicking the Danish flag. The lush single blooms, more than 4" across with fringed petals, sit atop 24" stems with blue-green foliage. The attractive large seedheads that follow the showy blooms are ideal for drying. ③

5359 ***A**: 0.1g, $2.50* ***B**: 0.3g, $3.95*
***C**: 1.2g, $5.95* ***D**: 6g, $12.00*

Drama Queen - Organic Just another example of the hyperbole of those shameless variety-namers? Not this time. It's everything its name suggests, including having its photograph all over the internet. Petals are deeply cut with irregular pointy fringes, and shaded with deep purple and violet near the center which morphs to vivid raspberry toward the edges. Yellow-green centers with prominent creamy-yellow anthers accentuate the 4–5" flower. Either gorgeous or hideous, depending on your point of view, but undeniably dramatic. 3' tall. ①

5366 ***A**: 0.1g, $2.75* ***B**: 0.3g, $4.65*
***C**: 1.2g, $7.25* ***D**: 6g, $14.25*

Fluffy Ruffles - Organic A beautiful color selection with mostly pink on the outer two thirds of the petal edge with a slight purple blush in the middle and on the petal backs. Double, but not a full pompon; the fringes on the petal ends give it a spider-aster or cactus-dahlia look. The grower enthuses about how much he enjoys a field of these in full bloom. Reblooms after deadheading, though the blooms are smaller. 3'. ①

5371 ***A**: 0.1g, $2.75* ***B**: 0.3g, $4.50* ***C**: 1.2g, $7.00*

Ladybird Not a reference to Lady Bird Johnson, former First Lady famous for promoting roadside beautification, this Ladybird is instead British for ladybug: the four black dots in the center of these fire-engine–red blooms make a fanciful resemblance to the beloved beetle. Compact $1^{1}/_{2}$" delicate single blooms atop wiry 15" stems. This cottage variety, great for edging the flower garden, dates back to 1876. Bloomed June 30 from a May 2 planting. ② *We're not sure when this seed will arrive—check our website for availability.*

Large Lavender - Organic Passed along to Jeanne Griffin by a German friend, these tall poppies bloom in July with $2^{1}/_{2}$–3" single flowers that have exquisitely shaded and fringed petals. Long blooming period. Large 1" seed pods can be used in dried arrangements. ①

5377 ***A**: 0.1g, $2.75* ***B**: 0.3g, $4.65*
***C**: 1.2g, $7.25* ***D**: 6g, $14.50*

Shirley Double Choice Mix Also known as Corn Poppy, was called Ghost or Fairy Poppy early in the century. Elegant semi-double blooms all summer in shades of pink, rose, salmon, scarlet and white. The name Shirley refers to the town in Surry, England, where the Rev. Henry Wilkes originally raised the variety. It was relatively new in 1890 when Hallock's Famous Long Island Seeds said it was "conceded by all to be still the finest Novelty that we can give you this spring. The flowers are like fairy work…so silky and tissue-like…Bending and trembling with life-like beauty, the surface is a perfect shimmer of light and color." $2^{1}/_{2}$' tall. ②③

5379 ***A**: 0.7g, $2.85* ***B**: 7g, $4.95* ***C**: 28g, $9.95*

Dwarf Allegro Oriental Poppy *Papaver orientale. Not available in 2024.*

CALIFORNIA POPPY *Eschscholzia californica*

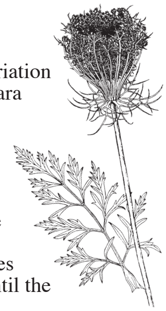
Annual. The state flower of California is excellent for borders, rock gardens, bedding. Not suited for bouquets since the petals quickly drop. Likes full sun. Do not transplant. Direct seed in May after soil has begun warming and thin to 6" apart when true leaves appear. Make succession plantings for blooms all summer.

Belles Bright colorful semi-double 2–3" silky orange flowers, occasionally yellow, rose-red or white. The 8–9" tall plants are much favored for their heat and drought tolerance. This variety is commonly known as **Mission Bells**, an unfortunate name for a California Poppy, considering the painful history of Native peoples being forced into labor at the missions of California and then dying under the brutal conditions of colonial genocide. So we call them simply 'Belles.' About 650 seeds/g. ③

5382 ***A**: 0.1g, $2.75* ***B**: 0.3g, $5.25*
***C**: 1.2g, $12.00* ***D**: 6g, $25.00*

Mikado (60 days) Cheery cup-shaped silky blooms range from light orange to deep rust, opening their faces to the sun each morning and closing up again at night. Finely cut glaucous blue-green foliage on 12–18" tall plants. Low maintenance, with blooms from early summer into early fall, sometimes taking a break during heat waves. ③ **NEW!**

5383 ***A**: 0.1g, $2.75* ***B**: 0.3g, $5.25*
***C**: 1.2g, $12.00* ***D**: 6g, $25.00*



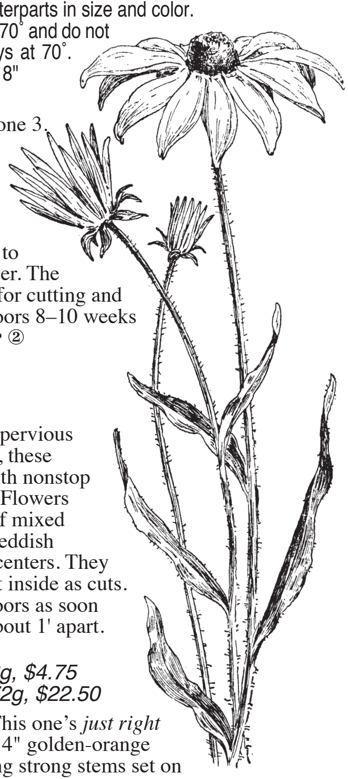
Dara Queen Anne's Lace - Organic *Daucus carota* (70 days) Annual. A sharp-eyed gardener noticed color variation in Queen Anne's Lace and selected from there. Though Dara sports the 3–5" lacy umbels typical of the wildflower, it's the color that crowns this queen—ranging in shades from deep rich purple to dark wine red, soft pinks and an occasional white, with many interesting variations in the color patterning. The 3' plant bearing 7–15 sturdy upright stems makes a regal and long-reigning appearance in the cottage garden while attracting pollinators. Also appreciated in bouquets as a long-lasting filler that provides a lacy softening effect; when cutting for bouquets, wait until the stems have stiffened to avoid a droopy head. ✿ ①

5385 ***A**: 0.1g, $3.95* ***B**: 0.5g, $9.95* ***C**: 3g, $29.95*

RUDBECKIA spp.

Named for Olaf Rudbeck (1660-1740), professor of botany at Uppsala in Sweden and a teacher of Linnaeus. Improved versions of these rugged North American native black-eyed Susans outstrip their wild counterparts in size and color.

Culture: Drought-tolerant. Start indoors at 70° and do not cover the seed. Germinates in 14–21 days at 70°. Transplant after danger of frost at 15–18" apart. Likes full sun, good drainage.



Goldsturm *R. fulgida* Perennial to Zone 3. Domesticated cousin of the beloved black-eyed Susan, Goldsturm offers a profusion of shining golden-yellow flowers with dark central cones in August and September. Transplants well and has much larger flowers—up to 5" across—than the common wildflower. The 2' plants have long strong stems ideal for cutting and flowers last long in the vase. Start indoors 8–10 weeks before last frost. About 960 seeds/g. ✿ ②

5393 ***A**: 0.1g, $3.25*
***B**: 0.4g, $5.25*
***C**: 1.2g, $9.50*

Gloriosa Daisy *R. hirta*. Annual. Impervious to the hottest sun and the poorest soils, these workhorses reward even the novice with nonstop flowers from late July until fall frosts. Flowers up to 6" on 2–3' stems have the hues of mixed sunflowers: yellow, gold, orange and reddish brown, surrounding chocolate-brown centers. They enhance the border and can be brought inside as cuts. Transplant or start seeds directly outdoors as soon as the ground can be worked. Space about 1' apart. About 1,800 seeds/g. ✿ ③

5395 ***A**: 2g, $2.75* ***B**: 6g, $4.75*
***C**: 24g, $9.25* ***D**: 72g, $22.50*

Goldilocks *R. h.* (86 days) Annual. This one's *just right* to brighten bouquets and beds with its 4" golden-orange blooms with deep-set brown eyes. Long strong stems set on 24–30" plants make this an outstanding cutflower. Enough are fully double to give the effect of a patch of chrysanthemums. About 1,800 seeds/g. ✿ ③

5397 ***A**: 0.1g, $2.95* ***B**: 0.3g, $4.75* ***C**: 1.2g, $9.25*

Prairie Sun *R. h.* (88 days) Annual. Sixteen pointy golden petals with light yellow tips encircle a subtle green center. Flowers are very large and distinctive. Branching 24–30" plants have long stems, ideal for cutflowers. Prairie Sun won both an AAS and a Fleuroselect medal in 2004. Color-coated seed for improved visibility. Pelleted seed. ✿ ②

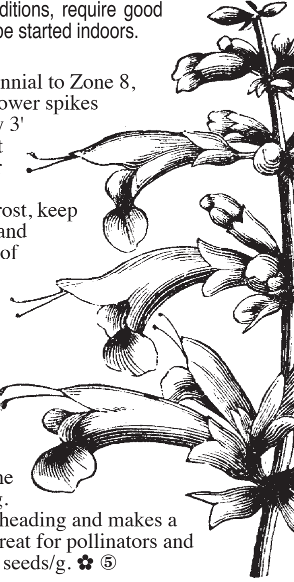
5399 ***A**: 25 pellets, $4.75* ***B**: 100 pellets, $12.00*
***C**: 250 pellets, $23.00* ***D**: 500 pellets, $35.00*

SALVIA spp.

From the Latin *salvere*, 'to heal.' Wide-ranging genus with more than 900 species throughout the world. In the Northeast they range from tiny lawn weeds to showy ornamentals to culinary sage. Members of the mint family, most have square stems and blue or lavender flowers with prominent lips.

Culture: Like full sun and dry conditions, require good drainage. In our climate, all should be started indoors.

See also Sage **4664**, page 90.



Blue Bedder *S. farinacea* Perennial to Zone 8, grown as an annual. True blue flower spikes are abundant for weeks on bushy 3' plants. Grey-green foliage. Light aids germination so do not cover seed. Start indoors in warm location 4–6 weeks before last frost, keep fairly dry for best foliage color, and transplant outdoors after danger of frost. About 900 seeds/g. ✿ ③

5406 ***A**: 0.2g, $2.95*
***B**: 1g, $4.95*
***C**: 4g, $10.95*

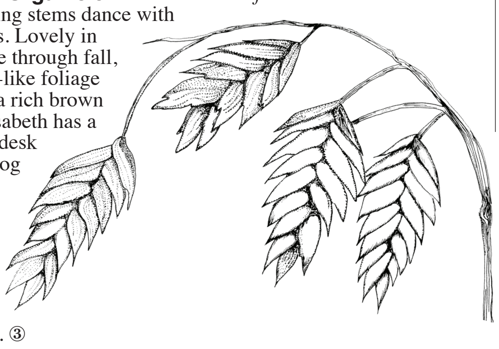
Lighthouse Red *S. splendens* (70-85 days) Annual. Glowing red tubular flowers grow along spikes on a big bushy low-maintenance shrub-like 24" tall plant. A beacon in the garden, especially in the evening. Reblooms all summer with deadheading and makes a nice cutflower. Red salvias are great for pollinators and not attractive to deer. About 340 seeds/g. ✿ ⑤

5410 ***A**: 20 seeds, $5.00*
***B**: 40 seeds, $6.00*
***C**: 100 seeds, $10.00*

Tricolor Salvia *S. viridis* Annual. Also known as Painted Sage. This prolific little beauty is splendid as a dried flower or a filler in fresh arrangements. Although its leaves are entirely green, its name comes from its white and blue flowers set off by large pink-to-purple bracts that ascend the 18" stalks. Easily air-dried, it will remain very colorful, and flowers until frost if old blooms are removed. Start indoors 4–6 weeks before last frost. Needs well-drained soil. About 350 seeds/g. ✿ ③

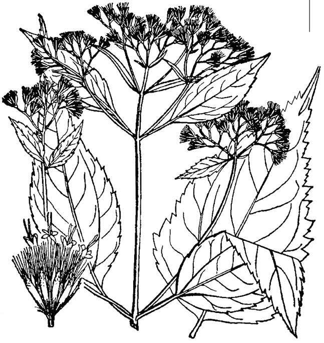
5419 ***A**: 1g, $2.95*
***B**: 4g, $4.65*
***C**: 12g, $8.95*

Northern Sea Oats - Organic *Chasmanthium latifolium* Perennial to Zone 4. Strong 2' arching stems dance with airy flattened seedheads. Lovely in arrangements from June through fall, after which its bamboo-like foliage changes from green to a rich brown for winter contrast. Elisabeth has a vase of sea oats on her desk as she finishes the catalog in late October. The dried seedheads make interesting accents in handmade paper. Likes moist conditions and is a lighter green when grown in full sun. About 260 seeds/g. ③



5423 ***A**: 0.2g, $3.00* ***B**: 1g, $5.25* ***C**: 4g, $10.00*

White Snakeroot - ECO *Ageratina altissima* Perennial to Zone 3. Tolerance of poor conditions, fast growth habit via rhizomatous roots, and capacity to self-sow make snakeroot a great plant for disrupted soils. It might seem to be taking over at first, but once soil improves it'll settle down and make way for other plants. Attracts late-season pollinators with multiple flat-topped fuzzy clusters of small pure white disk flowers held above dark green heart-shaped coarsely toothed, slightly hairy foliage. Makes nice filler for bouquets. Blooms August through October, attracting multiple species of bees, moths and butterflies. Thrives in part sun, tolerates shade. Soil adaptable. Surface sow outdoors in fall or winter, or provide at least 60 days cold stratification. *The entire plant is toxic to mammals; not a good choice around pastures.* ① **NEW!**

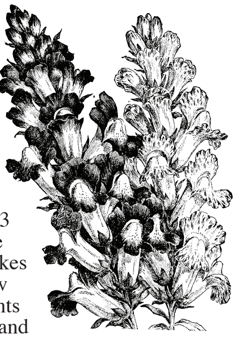


5424 ***A**: 0.1g, $3.95*
***B**: 0.5g, $7.95*
***C**: 2g, $19.95*

SNAPDRAGON *Antirrhinum majus*

Perennial to Zone 7, grown elsewhere as an annual, though occasionally overwinters even in central Maine. For cuts, harvest when more than half the flowers are open. Will last 5–8 days.

Culture: Withstands light fall frosts. Sow indoors at 65–75°. Do not cover the seeds. Grow on at 60°; warmer temperatures cause leggy transplants. Set out after danger of frost, spacing at 9–12". **About 5,000 seeds/g.**



Cherry Twist (90 days) Open-pollinated snapdragon with a twist, please! A star in our 2023 flower trials, and our whole staff gushed when we brought vases of these to the warehouse. Nice spikes of magenta and buttercream blossoms with yellow throats bloom from mid-July into September. Plants reach 20–24" tall and are ideal for beds, borders, and of course, cutflowers. ③ **NEW!**

5430 ***A**: 50 seeds, $2.25* ***B**: 250 seeds, $4.95*
***C**: 1,000 seeds, $11.00*

Rocket Mix (120 days) F-1 hybrid. Very popular with commercial growers, this is the standard snapdragon for cutting. Its long stems and vibrant colors—pink, red, yellow, orange, white and orchid—on 2–3' plants. ⑤

5431 ***A**: 50 seeds, $2.35* ***B**: 250 seeds, $4.95*
***C**: 1,000 seeds, $11.95*

Red Broom Corn *Sorghum bicolor* (105 days) Annual. Originally from Africa, sorghum is cultured in the South for the sweet syrup of its stalks. In the floral trade it is used as a focal point for large arrangements. Looks and grows like corn but develops no ears, instead producing a tall spray of seed heads at the top of the plant in lieu of a tassel. These 2–3' sprays are laden with shiny red ⅛" seeds that birds love. Incorporate seeds into edible bird-feeder wreaths or leave sprays intact to add variety to traditional fall decorations. To make natural straw brooms, comb seeds out of the dry sprays and tie the seedless heads together, using about 50 heads per broom. Stalks, generally 7–9', will grow up to 10' in an optimal season. About 42 seeds/g. ①

5437 ***A**: 4g, $3.25* ***B**: 12g, $4.95*
***C**: 36g, $7.95* ***D**: 180g, $19.95*

Mixed Colors Statice *Limonium sinuatum* (115 days) Annual. Faithful standby in everlasting bouquets; also good in fresh arrangements. Mix includes lavender, rose, purple, white. Reaches 2–2½' on stiff winged bright green stems. Flowers may be gathered for drying many times throughout summer. Seed is rubbed for easier germination, which takes 5–14 days at 70°. Some light should reach the seed. Vernalize seedlings at 50–55° until they reach the 5-leaf stage, then increase temperatures to 60–70°. Grow in full sun. Tolerant of dry conditions. About 295 seeds/g. ②

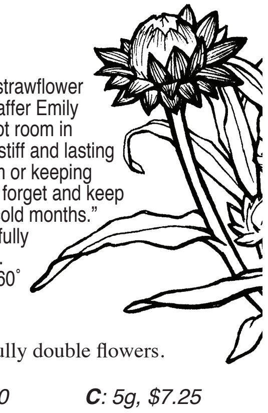
5464 ***A**: 0.4g, $2.75* ***B**: 2g, $4.50*
***C**: 6g, $7.35* ***D**: 30g, $19.00*

QIS White Statice *Dropped for lack of interest. Go with the mix!*

Vintage Mix Stock *Matthiola incana* Annual. Old-fashioned bedding and container plant formerly known as Gilliflower, with multiple spikes of usually double flower clusters, a fragrant mix of pink, lavender, red, rose, peach, yellow, copper and white bred for larger flowers and early bloom. About half will have fully double blooms. Sturdy well-branched 15–20" plants. Genus is named for Pierandrea Mattioli, a 16th-century Italian botanist, while *incana* means 'hoary' or 'light grey,' referring to its soft grey leaves. Tolerates frost to around 26°. For earlier blooms, sow indoors at 60–65° 6 to 8 weeks before setting out after danger of frost. Likes moderately fertile moist well-drained soil, full sun. Stocks are in the Brassica family; practice crop rotation with crops like broccoli and cabbage. About 550 seeds/g. ⑤

5475 ***A**: 50 seeds, $3.25* ***B**: 250 seeds, $7.85*
***C**: 1000 seeds, $18.00*

STRAWFLOWER
Xerochrysum bracteatum



Annual. Formerly *Helichrysum*. The free-blooming strawflower is good for border color and excellent for drying. Staffer Emily Skrobis is not much of a flower person, but she's got room in her food-focused heart for strawflower: "I love how stiff and lasting they are—I don't have to worry about crushing them or keeping them pristine. They're so easy to dry. Just pick and forget and keep them in bowls around your house to admire in the cold months."

Culture: Grow in full sun. Gather blossoms before fully opened. Likes warm weather but will bloom into fall. Germinate at 70–75°; grow on at 65–70° days and 60° nights. Do not overwater. Transplant in 6 weeks at 12" spacing. **About 1,080 seeds/g.**

Monstrosum Fire Ball Bright red 2–2½" fully double flowers. 30–40" tall. ③

5483 ***A**: 0.2g, $2.75* ***B**: 1g, $4.50* ***C**: 5g, $7.25*

Monstrosum Mix Hot pink, light pink, white, gold and deep rose 2–2½" fully double flowers. 30–40" tall. ②

5488 ***A**: 0.33g, $2.75* ***B**: 7g, $4.95* ***C**: 28g, $8.65*

SUNFLOWER *Helianthus annuus*

Annual. Sunflower remains have been found in the Tabasco region of Mexico dating back more than 6,000 years. Prized for their seeds by humans and birds, and for cutflowers by market growers, sunflowers also add a lighthearted touch to gardens. **Culture:** Easy to grow. Start indoors 3–4 weeks before last frost at temperatures of 65–75° or direct sow after frost, 3 to a pocket. Thin to best plant, 1' or more apart. Rich friable soil yields tallest plants; drought stunts growth. Will readily self-sow; for some fun, leave a few volunteers in strategic locations.

Varieties open-pollinated unless otherwise indicated. All varieties have pollen unless noted otherwise.

See also **5906** Hopi Dye sunflower, p. 110.

Sunflower Sampler We mix seed for a half dozen or so varieties into one package so you can create a lovely display. No dwarfs or mammoths. May include hybrid varieties. 25–30 seeds/g.

5599 ***A***: *1g, $2.75* ***B***: *3g, $4.75*
C: *9g, $10.50* ***D***: *90g, $37.00*

Autumn Beauty Mix - Organic (70-90 days) This 6–8' multi-branching beauty is always a top seller. Produces a lovely mixture of earthen shades, petal colors ranging from bright yellow to bronze and purples. Most have a characteristic red ring enclosing a black center. Blossoms 4–6" across are perfect as the center of giant flower arrangements. Annual. ~45 seeds/g. ✿ ②③

5500 ***A***: *1g, $2.75* ***B***: *4g, $4.25*
C: *28g, $9.50* ***D***: *448g, $85.00*

Evening Sun - Organic (60-80 days) Large 3–5" blooms in sunset hues of burgundy, russet-bronze, vivid gold and red, with many bicolor blends. Some say the 6–8' multi-branching plants have even more blooms than Autumn Beauty. ✿ ②

5501 ***A***: *1g, $3.25* ***B***: *2g, $4.35*
C: *10g, $9.75* ***D***: *40g, $28.00*

Fantasia F-1 hybrid. Stately 4–5' stalks bearing 4–8" perfectly round **pollen-free** flowers. The best of 16 varieties in CR's grow-out. He noted a perfect blossom that opened with the month of September and was most gorgeous on Sept. 8. It was 5" across, yellow-orange with a striking dark brown center. Fantasia is a formula blend with colors ranging from white to darkest red, with double and semi-double flowers. About 22 seeds/g. ③

5503 ***A***: *1g, $3.00* ***B***: *2g, $4.75*
C: *10g, $15.25* ***D***: *40g, $35.50*

Florenza Attracted many comments in past sunflower trials at Common Ground Fair. Stunning brown-centered 6" flowers in maroonish-red with yellow tips and a hint of yellow around the center. Mixes well with other sunflowers; makes the whole bouquet pop. 3½' tall. About 40 seeds/g. ✿ ②

5507 ***A***: *0.5g, $3.25* ***B***: *2g, $6.75*
C: *8g, $13.50* ***D***: *24g, $30.00*

Green Heart F-1 hybrid. Stole the show and CR's heart with its bold display in his Colrain, MA, beds. Golden-yellow blooms with their amazing 4" lime-green centers could stop traffic. These make compelling cutflowers and are **pollen-free**. Tall straight single stems grow up to 5'. About 15 seeds/g. ②

5509 ***A***: *1.2g, $4.55* ***B***: *2.4g, $7.95*
C: *12g, $24.00* ***D***: *36g, $54.00*

The Joker (60 days) F-1 hybrid. A bicolored **pollen-free** beauty with two rings of petals. An interior short yellow fringe resembling eyelashes radiates from the brown disk and accentuates the big orangey-maroon yellow-tipped outer petals. One of the best and showiest sunflowers for cutting. Mottled red stalks grow 5–7' with multiple branching. About 22 seeds/g. ③

5512 ***A***: *1g, $3.15* ***B***: *2g, $4.50*
C: *10g, $12.00* ***D***: *40g, $23.00*

Lemon Queen Luxuriant 8" blooms with lemon-yellow petals surrounding striking solid brown centers. Although it can grow up to 10' tall in rich soil, its powerful stems do not lodge. Likes high fertility; makes shorter stems and narrower petals in average soil. Not early; bloomed for Donna Dyrek in late August. About 20 seeds/g. ✿

Lemon Queen ②

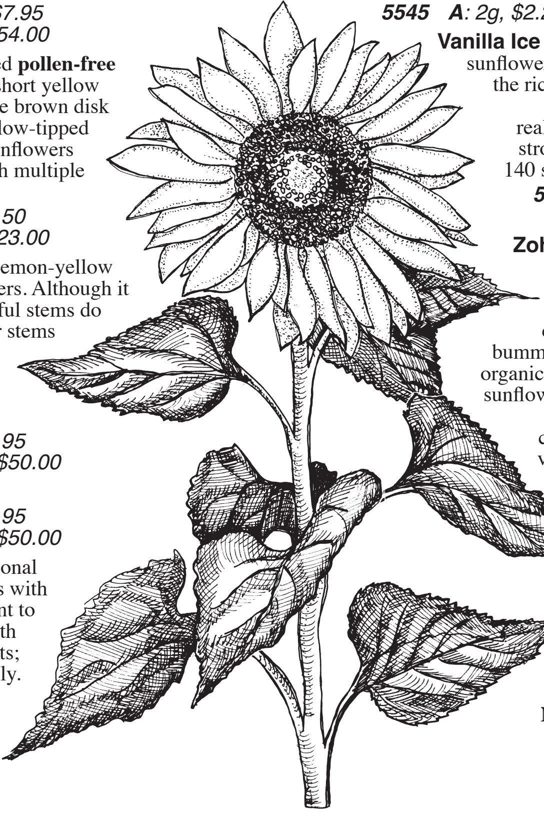
5514 ***A***: *1g, $2.50* ***B***: *5g, $3.95*
C: *20g, $6.95* ***D***: *440g, $50.00*

Lemon Queen - Organic ①②

5515 ***A***: *1g, $3.95* ***B***: *5g, $5.95*
C: *20g, $12.00* ***D***: *200g, $50.00*

Mammoth Grey Stripe (120 days) Traditional variety of giant 6–12' single-stem sunflowers with large seed heads. The one to grow if you want to eat the seeds or plant a maze. Beloved by both birds and kids. Popular in larger-sized packets; we consistently sell more than 100 lb annually. About 7 seeds/g. ✿ ②③

5518 ***A***: *½oz, $2.95*
B: *2oz, $5.45*
C: *8oz, $13.50*
D: *16oz, $19.95*



ProCut Red (55 days) F-1 hybrid. A red addition to the popular **pollen-free** ProCut series for which our customers have been clamoring. The deep red petals surround a brown disc on 4–6" flowerheads—single-headed on strong stems for effortless bouquets. 4–6' tall. About 25 seeds/g. ③

5520 ***A***: *1g, $3.35* ***B***: *2g, $5.55*
C: *10g, $16.00* ***D***: *40g, $45.00*

Moulin Rouge (65 days) F-1 hybrid. A favorite among commercial growers for its color, though not all stems are long enough for cutting. 5–6' multi-branching stems topped by gorgeous 5–7" dark red **pollen-free** blossoms, somewhat short-lived. Burgundy petals become almost black close to the disc. About 15 seeds/g. ③

5521 ***A***: *1g, $2.75* ***B***: *2g, $4.00*
C: *10g, $8.25* ***D***: *40g, $26.00*

Ruby Eclipse (55 days) F-1 hybrid. Ruby-red petals with lemon tips are a vivid addition to any collection of sunflowers. The gorgeous **pollen-free** 4–5" flowers with dark centers sometimes shade into pink. 6' branching plants. About 20 seeds/g. ③

5533 ***A***: *1g, $2.75* ***B***: *2g, $4.25* ***C***: *10g, $12.00*

Schnittgold Handsome single-headed 5' sunflower. The center's double center ring surrounded by deep yellow petals makes a striking display. The inner pollen ring is black and flat, surrounded by an auxiliary ring of brown. *Schnitt* means 'cut' in German; with 8–10" blooms, this variety makes a superb cutflower. Customer Karen Pratt pointed out that Schnittgolds, when mature, get a hollow in the center—perfect for making sunflower bird wreaths. About 20 seeds/g. ✿ ②

5536 ***A***: *1g, $2.75* ***B***: *3g, $4.00*
C: *12g, $8.45* ***D***: *60g, $25.00*

Selma Suns Mix - Organic (63 days) Trialer Donna Dyrek rates these her favorite sunflowers for their fragrance, beautiful diversity and plethora of polyheading 6" blooms. Heads have small dark centers, pointed petals, and display various hues and shades including yellows, golds, maroons and reds; many are multicolored. Dyrek reports that it "flowers forever if the squirrels don't rip off the heads." 6–7' tall. About 50 seeds/g. ✿ ①

5539 ***A***: *1g, $2.95* ***B***: *3g, $5.65*
C: *12g, $9.95* ***D***: *60g, $27.00*

Soraya (80 days) The first sunflower ever to win an AAS (2000), Soraya impressed the judges with its luminescent deep orange petals, contrasting dark mahogany center disks, and sturdy branching habit. The latter accounts for its astonishing productivity, up to 25 4–6" blooms per plant, borne on stout 20" stems, perfect for cutting. **Almost pollenless**. Day-length neutral. 6' plant spreads 2–3'. About 35 seeds/g. ②

5541 ***A***: *0.5g, $4.65* ***B***: *4g, $13.95*
C: *16g, $36.00* ***D***: *64g, $124.00*

Summer Sensation (65 days) Vibrant 8" flowers, yellow surrounding a dark disk, on 5' plants. Can be grown as a single stem or pinched to branch out. Seedheads can be crafted into decorative natural bird feeders. The seeds are also considered prime for human snacking. About 6 seeds/g. ✿ ③

5545 ***A***: *2g, $2.25* ***B***: *6g, $4.25* ***C***: *30g, $12.00*

Vanilla Ice *H. debilis* The closest we have seen to a white-petaled sunflower. Cream to pale yellow petals make a great contrast to the rich dark disk in the center. Superior to the better-known Italian White in our trial. Wini Noyes advised to "start really, really early and don't transplant until they are very strong." Polyheaded with 5' stalks, 3–4" blossoms. About 140 seeds/g. ✿ ②③

5555 ***A***: *1g, $2.95* ***B***: *3g, $5.45*
C: *12g, $10.95* ***D***: *60g, $41.00*

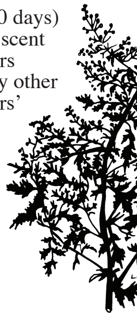
Zohar - Organic (55-65 days) F-1 hybrid. This splendid single-stem sunflower matches the cutting standard ProCut® Orange in reliability, quality and timing. Radiant golden petals surround a dark **pollenless** center and plenty of chutzpah! Pollenless blooms are a bummer for the bees, but a boon for your tablecloths and for organic growers competing with imported industrially farmed sunflowers. High-quality organic flower seed for professional florists can be hard to come by; we hope that trend is changing as more gardeners and flower farmers see the value of buying OG seed. Vote with your dollars, y'all! Flower size of single-stem sunflowers are somewhat determined by spacing, fertility and water. Plant them very close together for mini-sunflowers; 6–8" apart for mixed bouquets; and 12" apart for larger heads. Zohar, like many sunflowers, is day-length sensitive—they will grow taller and take longer to bloom if they're started with less than 12–13 hours of daylight (not much of a concern in Maine), and may flower on short stems if planted too late in the summer. Plant successions for a continued harvest. ③

NEW!

5560 ***A***: *1g, $3.95* ***B***: *2g, $5.95*
C: *10g, $14.00* ***D***: *40g, $45.00*

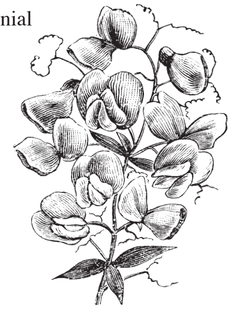
Sweet Annie - Organic *Artemisia annua* (120 days) Annual. Also known as Sweet Wormwood. The scent of Common Ground Fair, where so many vendors offer it and where we sell more seed than for any other item. John Pino has brought it to the Fair Farmers' Market by the trailerload. Sweet Annie grows up to 5', with light green leaves valued for everlasting wreaths that emit their distinctive redolence all winter. Reseeds itself vigorously. Seed must be frozen for 2 days, then germinated in light. About 250 seeds/g. ①

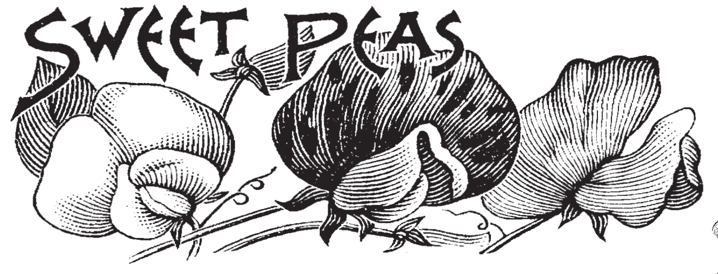
5603 ***A**: 0.2g, $3.25*
***B**: 0.6g, $6.35*
***C**: 2g, $12.00*

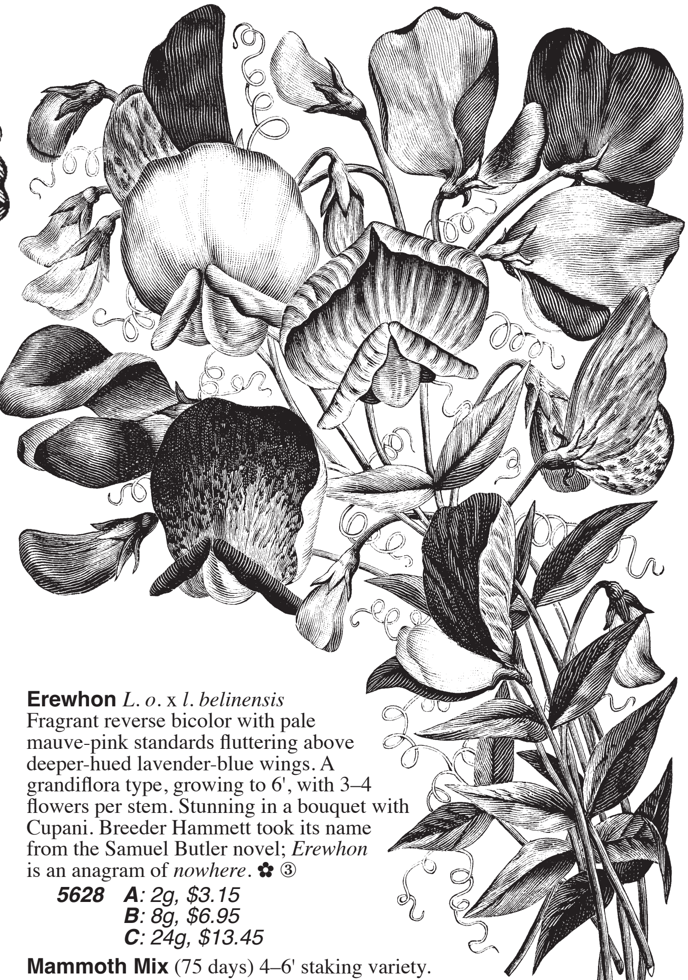


Perennial Sweet Pea *Lathyrus latifolius* Perennial to Zone 3. The traditional English cottage sweet pea, grown by Jefferson in 1771, thrives in cool climates, loves sun and climbs 6'. Useful as a screen. Comes in shades of rose, white and pink in big clusters. Good cutflowers. Soak seeds up to 24 hours before sowing outdoors in early spring. Can take 3–4 weeks to germinate. About 20 seeds/g. ③

5611 ***A**: 1g, $2.85*
***B**: 3g, $4.35*
***C**: 12g, $8.55*







SWEET PEA *Lathyrus odoratus*

Annual. Native to Sicily, first domesticated around 1699 when botanist and monk Father Francis Cupani shipped seed for the variety that bears his name to a hothouse grower in England. In the late 1800s extensive breeding work, especially by Henry Eckford, expanded the range of available colors. Around 1900 Silas Cole found a sport with much larger ruffled flowers but less scent than Eckford's varieties. It created a sensation when it was exhibited in 1901. From this variation derive all modern strains. As interest in fragrance revived, Bodger Seeds Ltd. obtained as many early varieties as possible and created Old Spice Mix in the 1970s.

Culture: Soak seeds for 12–24 hours prior to sowing. For earliest blooms, sow indoors 2 months before setting out, or sow direct in spring. Needs darkness for germination, which takes 10–21 days at 60˚. Likes full sun and moist rich soil, but many perform poorly in heat, so mulching is recommended. Requires support; we use **Trellis Netting** (page 142). Harvest frequently to keep blooms coming. Lasts only 3 days in the vase but perfumes the air incomparably. **About 10 seeds/g.**

America An antique striated variety, arresting both to eyes and nostrils. Each blossom contains subtle variations of bright reds with creamy white streaking. Heavily perfumed. First offered in 1896 by Morse-Vaughan. 3' vines. ✿ ③

5614 ***A**: 2g, $3.00* ***B**: 8g, $6.25* ***C**: 24g, $11.00*

April in Paris - Organic At last, it's April in Paris! (Actually, it's October in Clinton, but we can dream, can't we?) A hauntingly fragrant sweet pea bred by Keith Hammett, who combined large modern blooms and ruffled form with old-fashioned scent. Soft primrose-cream blossoms tinted at the edges with dark lilac bands that widen and deepen with age, atop long stems perfect for cutting. 4–6' vines. ✿ ①

5616 ***A**: 1g, $3.65* ***B**: 3g, $6.25* ***C**: 12g, $15.00*

Black Knight One of 115 varieties Eckford exhibited at the Crystal Palace in 1900, bred in 1898. Highly scented deep maroon flowers tolerant of heat. 5–6' vines. ✿ ③ *We're not sure when this seed will arrive at our warehouse—check our website for availability.*

Blue Celeste - Organic (60 days) Large luminous azure silky ruffled blossoms with fabulous perfume. Large abundant blooms make good cuts. Gorgeous and alluring at 6–8' tall. ✿ ①

5622 ***A**: 2g, $3.95* ***B**: 8g, $12.50*

Cupani Oldest and among the most fragrant of all sweet peas. Celebrated its 300th birthday in 1998 amidst a surge of renewed interest. Named for the Sicilian monk who found these bicolors growing wild, Cupani combines deep maroon-purple upper petals with deep violet-blue lower petals. 5' vines. ✿ ③

5623 ***A**: 2g, $2.95*
***B**: 8g, $6.25*
***C**: 24g, $11.25*
***D**: 120g, $36.00*

Knee-High Mix Semi-dwarf 20" bush-type plants need no support, produce full-length stems. Mix includes chianti, pink, blue-violet and lavender. ✿ ②③

5626 ***A**: 2g, $2.75*
***B**: 8g, $5.25*
***C**: 24g, $10.50*
***D**: 120g, $31.00*

Erewhon *L. o.* x *l. belinensis* Fragrant reverse bicolor with pale mauve-pink standards fluttering above deeper-hued lavender-blue wings. A grandiflora type, growing to 6', with 3–4 flowers per stem. Stunning in a bouquet with Cupani. Breeder Hammett took its name from the Samuel Butler novel; *Erewhon* is an anagram of *nowhere*. ✿ ③

5628 ***A**: 2g, $3.15*
***B**: 8g, $6.95*
***C**: 24g, $13.45*

Mammoth Mix (75 days) 4–6' staking variety. The best tall mix in our many gorgeous trials. Though temporarily slowed by heat waves, revives during each cool spell and never stops blooming from July to September. Long stems make ideal cutflowers. Mixture of crimson, scarlet, white, lavender, deep rose, medium blue and pink. The purples and reds are the most fragrant. Year after year the least finicky and most dependable performers in heat. ✿ ③ *We're not sure when this seed will arrive at our warehouse—check our website for availability.*

Mrs. Collier *Dropping for lack of interest, even though it's so lovely.*

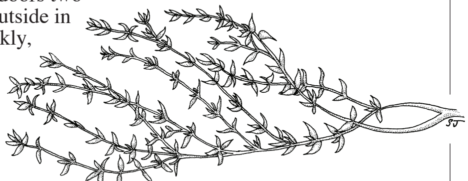
Kaleidoscope Mix Like gazing into a rotating cardboard tube at an ever-changing pattern of mesmerizing interlocking forms and colors. The most diverse color range of any sweet pea mix we know. Solids, bicolors, reverse bicolors, flakes and stripes in a wide array, sure to please the wide-eyed child in all of us. Over 5' tall. Another from Hammett. ✿ ③

5634 ***A**: 2g, $2.95*
***B**: 8g, $6.75*
***C**: 24g, $11.25*

Streamers Mix (60 days) The Streamers are known in the trade as "flakes" for the boldly streaked white patterns rippling on a mix of colors—blue, lavender, pink, purple, chocolate, orange and scarlet. With its good stems, huge blossoms, abundant fragrance and surprising longevity as a cutflower, this 2002 introduction was a real coup for Hammett. Over 5' tall. ✿ ③

5635 ***A**: 2g, $2.75*
***B**: 8g, $6.50*
***C**: 24g, $12.50*
***D**: 120g, $35.00*

Creeping Thyme *Thymus serpyllum* Perennial to Zone 3. Also known as Mother-of-Thyme or Brotherwort. Creeping sweet-scented ground cover with purple flowers good in rock gardens, between stepping stones or on dry slopes. Likes good drainage, full sun and alkaline soil. Plants grow slowly from seed, may be started indoors two months before planting, or outside in early spring or fall. Sow thickly, do not cover seeds, requires light to germinate. 2". About 6,290 seeds/g. ③ *We're not sure when this seed will arrive at our warehouse—check our website for availability.*



Culinary Thyme: See 4687 on page 91.

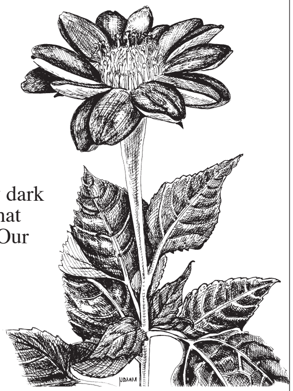
TITHONIA *T. rotundifolia*

Annual. Also known as Mexican Sunflower. Attract butterflies and bumblebees with these tall floriferous beauties. The dressy blooms often exceed 4" across and continue over a long season.

Culture: Heat-loving plant closely related to the zinnia. Sow outdoors after danger of frost in 70–85˚ soil, or start indoors 6 weeks before last frost date. Tithonia sulks in the cold so don't bring it out too soon. **About 100 seeds/g.**

Goldfinger Bond with Goldfinger! 4' tall with bright orange 3–4" blooms comparable to Torch's. Upright and uniform habit, more dwarf than Torch, yet with nearly as much charm and greater versatility. ✿ ③

5647 ***A**: 20 seeds, $2.75*
***B**: 60 seeds, $4.75*
***C**: 300 seeds, $7.95*

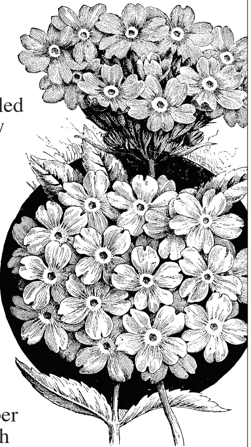


Torch (120 days) Stately 6' plants with velvety dark green leaves bear scarlet-orange 4–5" blooms that attract hummingbirds and monarch butterflies. Our fondness for this showy flower is shared by our customers. 1951 AAS. ✿ ③

5649 ***A**: 20 seeds, $2.50*
***B**: 60 seeds, $4.50*
***C**: 300 seeds, $8.00*
***D**: 1,200 seeds, $11.00*

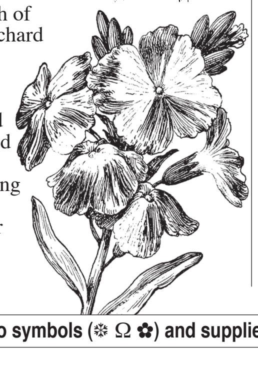
Purple Top Verbena *V. bonariensis* (90 days) Perennial to Zone 7, grown as an annual. Don't confuse this free-flowering Verbena with the hybrid dwarf bedding plant. Proud strong 3–4' stems almost without leaves topped with vibrant purple flowers that thrive in heat and bloom from July to October. Makes an ideal cutflower and mingles beautifully with other tall border plants. Hillary Nelson suggested combining with cosmos, lavender, purple zinnias and lemon mint. Attracts butterflies. Extremely drought-resistant. Erratic germination may be helped by 3–5 weeks of stratification prior to sowing. Start at 70–75˚, grow on at 55–62˚. Keep growing medium fairly dry. Cutflower customers love it, but its tendency to shatter annoys some growers. About 4,000 seeds/g. ✿ ③

5661 ***A**: 0.1g, $2.75* ***B**: 0.4g, $6.45*
***C**: 2g, $13.95* ***D**: 10g, $19.95*



Ideal Florist Mix Verbena *V. hybrida grandiflora* F-1 hybrid. Annual. Multiple whorls of many 5-petaled flowers spiral centrally like little umbrellas on sturdy 12" stems. The 3" umbels come in shades of deep magenta, white, lilac, blue-violet and fuchsia, all accentuated by white throats. The multi-branching semi-sprawling habit makes this mix wonderful for beds and bouquets. About 400 seeds/g. ③

5663 ***A**: 0.2g, $2.50*
***B**: 0.6g, $4.65*
***C**: 3g, $12.00*



Siberian Wallflower *Cheiranthus allionii* Hardy biennial, blooms the first year. Charming bright orange spice-scented phlox-like 4-petaled blossoms are anything but shy, glowing profusely from early summer into fall. The first week of October bumblebees were still flocking to this one, along with garden gawkers who couldn't resist a mid-fall splash of color. Once a wallflower self-sowed in the peach orchard from a nearby meadow where the year before we broadcast **5809** Northeast Wildflower Mix (page 7). This single plant, thriving in a wood chip mulch, grew to a bushy 12" tall, flopped in a heavy rain and then sent up dozens of vertical shoots that blossomed profusely, creating a dense orange mass—our new favorite orchard companion. This volunteer was going strong more than 100 days after arrival and a few hard autumn frosts. Sow outdoors in early spring, or start indoors and transplant out. Germination takes 7–20 days. 9–12". About 600 seeds/g. ✿ ②

5675 ***A**: 0.25g, $3.00*
***B**: 1g, $4.75*
***C**: 4g, $12.50*

ORNAMENTAL WHEAT *Triticum* spp.

See the Wheat on pg 131 to learn a bit about winter and spring wheats.

Black Eagle Spring Wheat - Organic *T. aestivum* (95 days) A stunning dual-purpose spring wheat, standing 3' tall in the field with black and white glumes and crisp 3–4" black awns that wowed Nikos the first time she saw it. Harvest early for best ornamental value as its striking color fades the longer the plants stand in the field. Later, as the kernels fill out and redden, gather the sheaves to thresh, winnow and grind. A 6-row wheat with good straw strength and average yield. Seed originated from Thumbs Heath of the Seed Savers Exchange. About 20 seeds/g. ① *We're not sure when this seed will arrive at our warehouse—check our website for availability.*

Utrecht Blue Spring Wheat - Organic *T. durum* This may be the world's most beautiful wheat. It hardly matters that Utrecht Blue is hard to thresh because it is too beautiful to eat and is used instead for wheat weaving and flower arrangements. Features four rows with blue-grey husks and long black awns. Utrecht is a spring wheat; sow it in April for harvest in September. About 20 seeds/g. ①

4324 ***A**: 7g, $3.75* ***B**: 28g, $9.00* ***C**: 112g, $17.50*

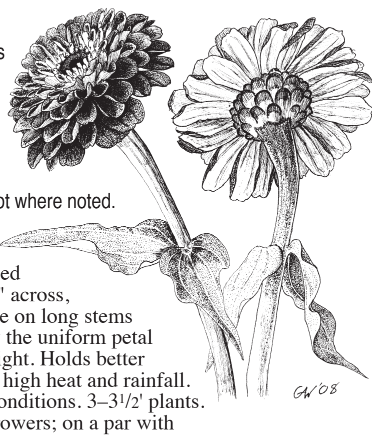
Yarrow: See p. 91 for medicinal white yarrow; p. 94 for ornamental.

ZINNIA *Z. elegans*

Annual. Known as Youth and Old Age in the 1800s, this showy genus was named for German botany professor Johann Gottfried Zinn (1727-1759). Easy to grow from seed and a favorite for bright color in Maine summers. Zinnia flower essence is used to bring out playfulness and lightheartedness.

Culture: Sow in a sunny spot after last frost, or start indoors for earlier blooms. Germinates 3–5 days at 80–85˚, more slowly at cooler temperatures. Grow on at 70˚ days, 60–65˚ at night. Temperatures below 60˚ delay flowering and may induce chlorosis. Space at 9–12".

They need good drainage and like heat. Market grower Jason Kafka says zinnias perform better in tunnels than in the field. With the extra heat they get so big that "they think they are in New Jersey." Cut when flowers are almost fully mature, just before pollen starts to form. Deadhead to continue production. **About 110 seeds/g** except where noted.



Benary's Giant (85 days) The most elegant giant dahlia-flowered zinnia. The densely petaled double flowers regularly exceed 4" across, showy yet extremely refined, borne on long stems perfect for cutting. Highlighted by the uniform petal patterns, colors are particularly bright. Holds better than most even under the stress of high heat and rainfall. Absolutely breathtaking in ideal conditions. 3–3½' plants. The zinnia of choice for market growers; on a par with State Fair Mix for home gardeners. *Benary's are film-coated with an industrial food-grade non-toxic coloring that does not contain any fungicides or pesticides*. About 120 seeds/g.

Benary's Giant Lime A trendy color in this superior series. ②

5700 ***A**: 25 seeds, $2.95* ***B**: 125 seeds, $7.40*
***C**: 500 seeds, $19.95*

Benary's Giant Scarlet A big beautiful red. ②

5702 ***A**: 0.2g, $2.95* ***B**: 1g, $7.40* ***C**: 4g, $19.95*

Benary's Giant Wine A very hot fuchsia. ②

5704 ***A**: 25 seeds, $2.95* ***B**: 125 seeds, $7.40*
***C**: 500 seeds, $19.95*

Benary's Giant Mix From yellow, orange and white to scarlet, rose-pink, coral, deep red, lilac and purple.

Benary's Giant Mix ②

5707 ***A**: 25 seeds, $2.95* ***B**: 125 seeds, $7.40*
***C**: 500 seeds, $19.95* ***D**: 2000 seeds, $75.00*

Benary's Giant Mix - Organic ①

5708 ***A**: 25 seeds, $3.15* ***B**: 125 seeds, $7.45*
***C**: 500 seeds, $19.95* ***D**: 2000 seeds, $75.00*

Cactus Bright Jewel Mix (75 days) Large ruffled zinnia blossoms resemble chrysanthemums in a mix of cactus petals and those that are more standard. Profuse immense blooms in scarlet, orange, pink, yellow. 3' tall. ③

5711 ***A**: 1g, $2.95* ***B**: 7g, $4.95*
***C**: 28g, $8.50* ***D**: 112g, $18.50*

California Giant Mix - Organic (85 days) Developed in 1926, California Giant (3–4' tall and bushy) blooms with masses of brilliant 4–6" double flowers in red, yellow, orange, lavender, maroon, violet and white. The flower shape is more open than **5714** Gold Medal Mix. Easy to grow and fantastic for cutflowers—the more you cut the more they bloom! ③

5713 ***A**: 1g, $3.65* ***B**: 7g, $9.45* ***C**: 28g, $25.00*

Yay flowers and gardens and summer colors and ordering these seeds on Jan. 1. Today is bringing me so much joy and hope!
– Gillian from Hyde Park, VT

more ZINNIAS

Gold Medal Mix A formula blend of cherry, orange, pink, purple, scarlet, white and yellow dahlia-flowered blossoms 4–5" across excellent for cutting. Flowers are flat-petaled, semi-double on 3½' plants. Bred by Bodger. ②③

__5714__ __A__: 1g, $2.75 __B__: 7g, $4.50
__C__: 28g, $7.95 __D__: 112g, $21.50

Inca Waist-high stems bear striking 3–4" single blaze-orange blooms with showy little yellow doodads (disk florets) in the center. Long stems for cutting. Flowered fluorescently from July to October at Donna Dyrek's trial. ②

__5717__ __A__: 0.5g, $2.95 __B__: 1.5g, $4.75 __C__: 9g, $11.00

Jim Baggett's Choice Mix - Organic (85-90 days) While we have extolled the late OSU breeder Jim Baggett's vegetable breeding efforts in the past, only recently did we consider his backyard avocation of breeding zinnias. Brilliantly hued large flowers on long stems come in bright oranges, yellows, red, magenta and pink with many petal forms, some cactus types and a few that look like they're related to Zowie. ①

__5720__ __A__: 25 seeds, $4.15 __B__: 100 seeds, $10.25
__C__: 400 seeds, $28.00

Pumila Mix (Cut & Come Again) Small 2' plants with flowers 2½–3" across. Wide range of colors includes orange, yellow, white, pink, lavender and scarlet. About 175 seeds/g. ③

__5725__ __A__: 1g, $2.50 __B__: 7g, $4.50
__C__: 28g, $8.75 __D__: 112g, $17.50

Queeny Series Mix (75-85 days) These Queenies offer 2–3½" doubles and semi-doubles in a truly regal range of color combinations: lime-orange, lime-red, lime with blotch (prettier than it sounds), and lemon-peach. 5–7 day vase life. Plants grow 24–30" tall. ②

__5726__ __A__: 25 seeds, $4.65 __B__: 50 seeds, $7.35
__C__: 150 seeds, $18.00 __D__: 500 seeds, $34.00

Scarlet Flame Spectacular elegant bright scarlet blooms. 4–5" blooms on 3' plants. Predates 1934. ③

__5728__ __A__: 1g, $2.95 __B__: 7g, $5.50
__C__: 28g, $13.95 __D__: 112g, $40.00

State Fair Mix (90 days) Old-fashioned variety bears a rich array of huge single and double 4–5" blooms on 30" plants. The blooms are much showier than those in the Gold Medal Mix with fully saturated colors that include red, magenta, purple, orange, lavender and pink. Our best-selling zinnia ranks sixth among all flowers. ②③

__5731__ __A__: 0.5g, $2.50 __B__: 2g, $4.95
__C__: 12g, $10.00 __D__: 112g, $27.00

Zowie!™ Yellow Flame (85 days) *Dropping all ⑥ suppliers. See page 5. Try 5725 Queeny Series. It's different, but fun.*

Jazzy Mix *Z. haageana* Talk about a workhorse ornamental! Retired catalog editor Susan Kiralis grew these small Mexican-style zinnias for the first time in 2022 and was totally jazzed. Easy to grow from seed and to transplant, they were covered with 1½" blossoms in intense vivid shades of yellow, gold, maroon, brick, copper and purple, with two or more colors decorating each semi-double flower. Bushy 2' plants with clean bright green foliage flowered nonstop from June till October frosts. Wiry stems provided long-lasting cutflowers. Very drought-tolerant, a big plus in 2022. Even better, the deer didn't touch them. About 650 seeds/g. ②

__5748__ __A__: 0.1g, $2.95

Dye Plants

Susanne Grosjean, of the Wednesday Spinners group in Downeast Maine, says, "You need only three dye plants: indigo for blue, madder for red and weld for yellow. Three primary colors, all excellent color-fast dye plants."

Dyer's Coreopsis Mix *C. tinctoria* Annual. A beautiful native ornamental that dyes in a full palette of color from yellows and greens to rusts and browns—and even black, depending on the combination of plant parts and mordants. Yellow 1½" cosmos-like flowers with reddish-brown centers top 2–4' branching stems flourish in full sun and make excellent cuts. The more you harvest, the more blooms will appear. Happily for dyers, you can dry the blooms to accumulate enough for a dye batch. Low-maintenance and rugged. Good for less cultivated areas such as open spaces, roadsides and borders, competes well with grasses and reseeds freely in optimal conditions. Tolerates drought. Direct seed outdoors after frost. About 1,500 seeds/g. ③

__5904__ __A__: 0.3g, $2.75
__B__: 0.9g, $3.95
__C__: 4.5g, $6.50

Hopi Black Dye Sunflower - Organic (90-100 days) *Helianthus annuus* Annual. A rare indigenous heirloom that the Hopis used as a natural dye source for coloring baskets purplish charcoal. "Blackest little seeds I've ever seen," says trialer Donna Dyrek. They will stain your hands purple when you collect them. Also edible and extremely easy to hull. 8' stalks with massive 12–18" main heads feature golden-yellow single petals around a dark purple-green center. Numerous side branches set all the way to the ground with smaller blossoms that make great cuts. Mound the soil around the base of the plants to prevent lodging. About 15 seeds/g. **Indigenous Royalties** ✿ ①

__5906__ __A__: 1g, $3.00 __B__: 4g, $6.00 __C__: 20g, $11.50
__D__: 100g, $43.00

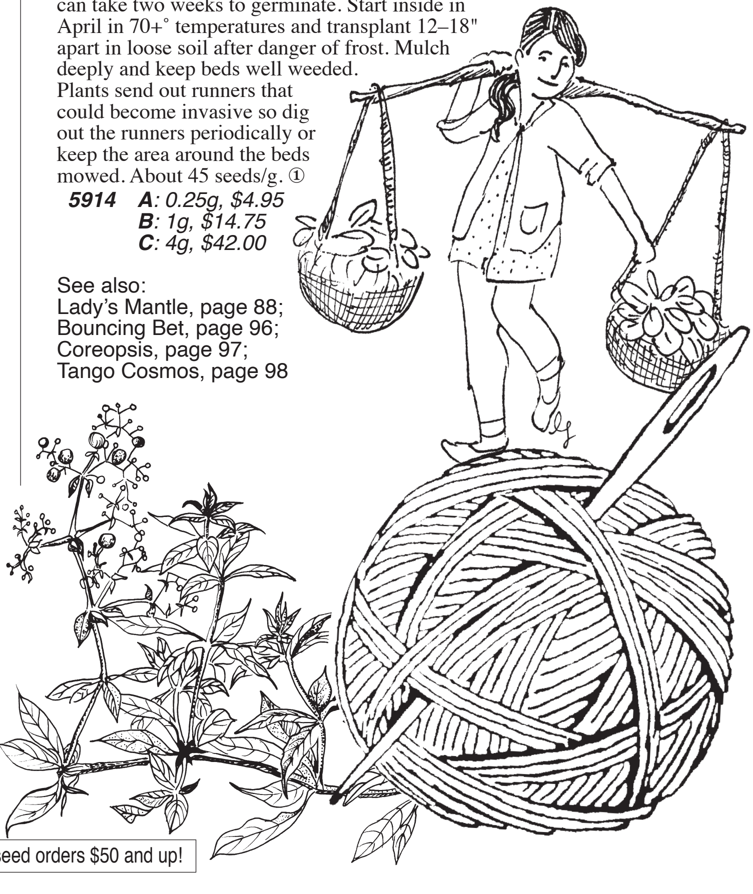
Indigo *Persicaria tinctoria* Japanese Indigo preferred by dyers in Maine. Formerly *Polygonum tinctorium*. A tender annual, indigo thrives in fertile soil and likes heat and humidity. Best started indoors 6–8 weeks before the last frost, transplanted out on 1' centers and kept moist. When the plants have grown 1–2' tall and bruised leaves turn navy blue, they are ready for a first harvest. If you cut the stems several nodes up from the ground, they will re-sprout and you can harvest the re-growth, perhaps several times more. Traditionally, dyers use dried leaves for the classic indigo color. If you intend to dye with fresh leaves, prepare the dye bath the same day as the harvest and expect a lighter shade of blue. About 250 seeds/g. ①

__5911__ __A__: 0.1g, $3.50 __B__: 0.3g, $8.75 __C__: 1.2g, $22.00
__D__: 4.8g, $70.00

Madder - Organic *Rubia tinctorum* Known as Common Dyer's Madder. Perennial to Zone 5 if mulched heavily. An ancient and excellent source of red dye, native to southern Europe and Asia, the 4' plants have square stems, whorled leaves and pencil-slender roots. Roots go down 2'. Do not harvest them for three years. Then dig deep to get the tap roots, not the runner roots, and grind them to yield a wash- and light-fast red dye par excellence. Seed can take two weeks to germinate. Start inside in April in 70+° temperatures and transplant 12–18" apart in loose soil after danger of frost. Mulch deeply and keep beds well weeded. Plants send out runners that could become invasive so dig out the runners periodically or keep the area around the beds mowed. About 45 seeds/g. ①

__5914__ __A__: 0.25g, $4.95
__B__: 1g, $14.75
__C__: 4g, $42.00

See also:
Lady's Mantle, page 88;
Bouncing Bet, page 96;
Coreopsis, page 97;
Tango Cosmos, page 98



Botanical Index

for Herbs & Flowers

page
Achillea millefolium 91, 94
A. ptarmica 94
Acmella oleracea 91
Agastache foeniculum 85
Ageratina altissima 106
Ageratum houstonianum 94
Alcea rosea 100
Alchemilla mollis 88
Allium schoenoprasum 87
A. tuberosum 88
Althaea officinalis 89
Amaranthus caudatus 94
A. cruentus 94
A. gangeticus 94
A. tricolor 94
Anethum graveolens 87
Anthriscus cerefolium 87
Antirrhinum majus 106
Aquilegia vulgaris 97
Arnica chamissonis 85
Artemisia annua 108
Asclepias syriaca 102
A. tuberosa 96
Astragalus membranaceus 85
Begonia x tuberhybrida 96
Borago officinalis 86
Bupleurum rotundifolium 96
Calendula officinalis 96
Callistephus chinensis 95
Campanula carpatica 97
Carum carvi 86
Celosia argentea 97
Centaurea cyanus 95
Cerinthe major 97
Chasmanthium latifolium 106
Cheiranthus allionii 109
Clarkia amoena 100
Cleome hassleriana 97
Codonopsis pilosula 87
Coix lacrima-jobi 100
Coleus scutellarioides 97
Consolida ajacis 101
Convolvulus tricolor 103
Coreopsis grandiflora 97
C. tinctoria 110
Coriandrum sativum 87
Cosmos bipinnatus 98
C. sulphureus 98
Craspedia globosa 99
Cuminum cyminum 87
Cymbopogon flexuosus 89
Cynoglossum amabile 97
Daucus carota 105
Delphinium x cultorum 98
Dianthus barbatus 98
D. caryophyllus 98
D. x hybrida 98
Dracocephalum moldavica 89
Dysphania ambrosioides 89
Echinacea purpurea 88
Eschscholzia californica 105
Eucalyptus cinerea 99
Eupatorium perfoliatum 86
Eutrochium purpureum 101
Foeniculum vulgare 88
Gaillardia aristata 99
G. pulchella 99
Galium odoratum 91
Gazania rigens 99
Gomphrena globosa 99
Helenium autumnale 100
Helianthus annuus 107, 110
H. debilis 107
Heliopsis scabra 100
Heliotropium arborescens 100
Hibiscus moscheutos 100
Hypericum perforatum 91
Hyssopus officinalis 88
Impatiens walleriana 100
Inula helenium 88
Ipomoea nil 103
I. purpurea 103
I. tricolor 103
Kniphofia uvaria 104
Lactuca virosa 91
Lathyrus latifolius 108
L. odoratus 108
Lavandula angustifolia 88
Lavatera trimestris 101
Leonurus cardiaca 89
Leucanthemum x superbum 98
Levisticum officinale 89
Limonium sinuatum 106
Linum perenne 99
Linum usitatissimum 99
Lobelia pendula 101
Lobularia maritima 94
Lunaria annua 100
Lupinus polyphyllus 101
Lychnis chalcedonica 101
Marrubium vulgare 88
Matricaria recutita 87
Matthiola incana 106
Melissa officinalis 89
Mentha pulegium 90
Mirabilis jalapa 99
Moluccella laevis 96
Monarda citriodora 89
M. didyma 96
M. fistulosa 86
M. punctata 96
Myosotis sylvatica 99
Nepeta cataria 86
N. mussinii 97
Nicotiana alata 103
N. sylvestris 103
Nigella damascena 101
N. hispanica 101
Ocimum basilicum 85-86
O. tenuiflorum 86
Origanum heracleoticum 90
O. majorana 89
O. syriacum 90
Orlaya grandiflora 101
Papaver orientale 105
Papaver spp. 105
Pennisetum glaucum 102
Persicaria tinctoria 110
Petroselinum crispum 90
Petunia x hybrida 104
Phacelia tanacetifolia 104
Phlox drummondii 104
P. paniculata 104
Physalis alkekengi 97
Pimpinella anisum 85
Platycodon grandiflorus 95
Polemonium caeruleum 100
Polygonum orientale 101
Pycnantheum incanum 89
Ratibida columnifera 97
Reseda odorata 102
Rosmarinus officinalis 90
Rubia tinctorum 110
Rudbeckia fulgida 105
R. hirta 105
Salvia farinacea 106
S. officinalis 90
S. splendens 106
S. viridis 106
Saponaria officinalis 96
Satureja hortensis 90
S. montana 90
Scabiosa atropurpurea 104
S. stellata 104
Scutellaria baicalensis 90
S. lateriflora 90
Setaria italica 102
Silybum marianum 89
Sinapis alba 89
Sorghum bicolor 106
Stevia rebaudiana 91
Symphyotrichum novi-belgii 95
Tagetes erecta 102
T. lucida 91
T. patula 102
T. tenuifolia 102
Tanacetum parthenium 88
Thymus serpyllum 109
T. vulgaris 91
Tithonia rotundifolia 109
Trigonella foenum-graecum 88
Triticum aestivum 109
T. durum 109
Tropaeolum majus 103
T. minus 103
T. peregrinum 97
Urtica dioica 89
Verbena bonariensis 109
V. hastata 91
V. hybrida grandiflora 109
Viola cornuta 103
V. tricolor 101
V. x wittrockiana 103
Withania somnifera 85
Xerochrysum bracteatum 106
Zinnia elegans 109-110
Z. haageana 110

Certified Organic Seed Varieties

Organics in the Catalog

We list all available organic selections in this section.

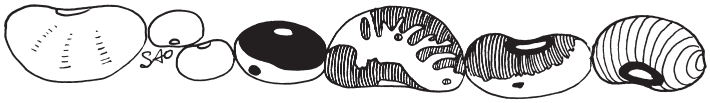
All variety descriptions (organic and otherwise), sizes and prices are in the main body of the catalog beginning on page 7. Sometimes we offer both conventional and certified-organic seed of the same variety.

Certified-Organic Seed

Fedco Seeds is certified by MOFGA Certification Services, Maine's USDA-approved certifier. MCS conducts an annual inspection and audit of Fedco to ascertain that we remain in compliance with the national standards.

If you buy organic seed because you are a certified grower, save your invoice and your packet labels so you can keep track of lot numbers to maintain your own audit trail.

We continue to expand our range of suppliers and our offerings of certified-organic varieties.



Sustainably Grown Seed

All seed in our catalog offered as **Organic** comes from certified-organic farms. Even farms grossing under $5,000 that would otherwise be exempt from certification must get certified for us, as a processor, to label their product "certified organic."

Believing it essential to the democracy and self-reliance of our agricultural community and to our integrity as a seed supplier, we have painstakingly built our network of small seed growers over the past 40 years. Most of our growers use farm and seed revenues to supplement income from other jobs. Many gross less than $5,000 farming. Some growers who practice sustainable farming methods conscientiously eschew certification for economical or ideological reasons. Thus, we are using the ecological label **ECO** after the variety name to describe uncertified seeds grown without pesticides, herbicides or chemical fertilizers in gardens and on farms that maintain an active soil-building program. Often this seed is as sustainably grown as the certified-organic seed. We hope you will continue to support both **Organic** and **ECO** growers with your purchases.

We use the label **BD** for those varieties certified biodynamically grown. Some varieties have both biodynamic and organic certification and so will be labeled **Organic/BD**.

All **open-pollinated** unless otherwise noted. See the main body of the catalog, beginning on page 7, for descriptions, available sizes and prices, cultural information and sundry facts. For organic farm seed see pages 126-131.

FLOWER MIXES pg 7

5804 Beneficials Mix

ARTICHOKE pg 8

3608 Imperial Star

BEANS pp 8–14

Bush Beans

205 Provider
231 Jade
241 Red Tail
225 Royal Burgundy
265 Gold Rush
269 Golden Butterwax
271 Dragon Langerie
249 Maxibel

Dry & Shell Beans

334 Black Coco
331 Silver Cloud Cannellini
328 Vermont Cranberry
341 Tiger's Eye
344 Jacob's Cattle
346 Gaucho
347 White Candle Gaucho
350 Soldier
356 Calypso
358 Monos Negros
365 Brown Resilient
367 Quincy Pinto
377 Red Kidney
385 Black Turtle

Pole Beans

278 Seychelles
280 Northeaster
281 Golden Gate
295 Blue Coco
371 True Red Cranberry

Lima Bean

web Packer's

Soybeans

488 Tankuro
491 Shirofumi
web Chiba

BEETS pp 14–15

2109 Early Wonder Tall Top
2121 Red Ace
2137 Chioggia Guardsmark
2170 Lutz Green Leaf
2187 Bull's Blood
2128 3 Root Grex
2129 Golden Grex
2144 Golden Detroit
2149 Touchstone Gold

BROCCOLI pp 16–17

3308 Covina F-1 hybrid
3312 Fiesta F-1 hybrid
3325 Umpqua
3330 Veronica F-1 hybrid

BRUSSELS SPROUTS pg 17

3346 Nautic F-1 hybrid

CABBAGE pg 18

3391 Klimaro F-1 hybrid
3393 Deadon F-1 hybrid

CAULIFLOWER pg 19

3406 Bermeo F-1 hybrid

CARROTS pp 20–21

2030 Coral
2090 Napoli F-1 hybrid
2092 Yaya pelleted F-1 hybrid
2051 Nantes Fancy
2060 Rumba
2062 Naval F-1 hybrid
2076 Danvers
2082 Bangor pelleted F-1 hybrid
2079 Scarlet Keeper

CELERY & CELERIAC pg 22

3624 Ventura Celery
3630 Redventure Celery
3634 Tango Celery
3644 Balena Celeriac
3648 Monarch Celeriac

CORN pp 23–25

516 Ashworth Yellow Sweet
636 Luther Hill White Sweet
675 Dakota Black Popcorn
677 PA Dutch Butter Popcorn
680 Painted Mountain
681 Ruby-Gold Flint
682 Abenaki Calais Flint
683 Blue Mountain Flint
685 Montana Morado Maize
688 Floriani Red Flint
web Hopi Blue

CUCUMBERS pp 26–28

1233 Common Wealth
1239 Little Leaf H-19
1314 Marketmore 76
1336 South Wing
1380 Socrates F-1 hybrid
1394 Suhyo Long
1396 Shintokiwa
1311 Boothby's Blonde
1318 Silver Slicer

EGGPLANT pg 29

3684 Diamond
3679 Annina F-1 hybrid
3688 Rosita
3691 Rosa Bianca

FENNEL pg 29

4567 Bronze
4553 Perfection
4554 Dragon F-1 hybrid

GRAINS pg 31

4309 Terra Hulless Oats
4316 Texicoa Sorghum
4330 Sirvinta Winter Wheat

GREENS pp 32–35

2993 Greens Mix
3020 Astro Arugula
3021 Ice-Bred Arugula
3023 Arugula
3037 Bali Chard
3038 Golden Sunset Chard
3039 Silverado Chard
3041 Red Rhubarb Chard
3042 Rhubarb Supreme Chard
3063 Très Fine Maraîchère Olesh Endive
3056 Wrinkled Crinkled Crumpled Cress
3182 Golden Purslane

ASIAN GREENS pp 36–38

3221 Tatsoi
3257 Chinese Thick-Stem
3222 Tokyo Bekana
3217 Garnet Giant Mustard
3219 Yukina Savoy Mustard
3226 Mizuna
3227 Ruby Streaks
3229 Mizspoona Selects GP
3236 Golden Frill Mustard
3239 Pink Lettucy Mustard GP
3245 Red Giant Mustard
3247 Osaka Purple Mustard
3249 Purple Rapa GP
3253 Toraziroh
3270 Prize Choy Pac Choi
2264 Rat-tail Radish Pods

KALE & COLLARDS pp 39–40

3449 Scarlet
3450 Dwarf Blue Scotch
3457 Rainbow Lacinato
3458 Darkibor F-1 hybrid
3463 Madeley
3465 Dazzling Blue Dinosaur
3460 Russian Frills
3462 Red Russian
3464 White Russian

KOHLRABI pg 40

3472 Kolibri F-1 hybrid

LETTUCE pp 41–46

2983 DeLuxe Lettuce Blend
2984 Freedom Gene Pool Blend
2985 Red Carpet Blend
2712 Black Seeded Sim. Looseleaf
2714 Green Ice Looseleaf
2791 Tango Looseleaf
2723 Salad Bowl Looseleaf
2729 Red Salad Bowl Looseleaf
2761 Red Sails Looseleaf
2766 Australian Yellow Looseleaf
2773 Hyper Red Rumple Looseleaf
2775 New Red Fire Looseleaf
2786 Red Tinged Winter Looseleaf
2790 Merlot Looseleaf
2787 De Morges Braun Looseleaf
2788 Oscarde Oakleaf
2720 Bronze Beauty Arrowhead
2738 Antares Oakleaf
2764 Blushed Butter Oaks
2762 Camo Oakheart GP
2763 Elf Ears Oak
2768 Lingua di Canarino Oakleaf
web Merlox Red Oak
2784 Flashy Green Butter Oak
2785 Italienischer Oakleaf
2740 Green Deer Tongue
2744 Really Red Deer Tongue
2767 Les Oreilles du Diable
2792 Revolution Lollo Rossa
2793 Dark Lollo Rossa
2795 Lollo di Vino
2807 Garnet Butter Gem
2819 Carmona Butterhead
2812 Buttercrunch Butterhead
2814 North Pole Butterhead
2815 Optima Butterhead
2816 Winter Marvel Butterhead
2828 Pirat Butterhead
2831 Speckled Amish Butterhead
2834 Sweet Valentine Butterhead
2842 Capitan Butterhead
2852 Pandero Romaine
web Blushed Butter Cos
web Jadeite Romaine
2856 Mayan Jaguar Romaine
2858 Forellenschluss Ritzy
2861 Jericho Romaine
2866 Plato II Romaine
2874 Olga Romaine
2883 Crisp Mint Romaine
2886 Winter Wonderland Romaine
2905 Cardinale Batavian
2908 Concept Batavian
2940 Brune d'Hiver Batavian
2918 Pablo Batavian
2921 Anuenue Batavian
2713 Gildenstern Batavian
2924 Crispino Batavian
2923 Red Iceberg
web Balady Aswan
2731 Cracoviensis

MELONS & WATERMELONS pp 47–50

971 Divergent F-1 hybrid
974 Tirreno F-1 hybrid
982 Arachne
984 Pride of Wisconsin
986 Montreal Market
958 Arava Galia F-1 hybrid
966 Huerfano Bliss
1003 Blacktail Mountain
1028 Sugar Baby
1035 Sweet Dakota Rose
1043 Quetzali
web Verona
1063 Crimson Sweet
1072 Moon and Stars
1021 Early Moonbeam

OKRA pg 51

3695 Cajun Jewel
3698 Red Burgundy
3699 Beck’s Big Buck

ONIONS & LEEKS pp 51–54

2474 Clear Dawn
2487 Talon F-1 hybrid
2445 Cabernet F-1 hybrid
2490 Rossa di Milano
2436 Matador Shallot F-1 hybrid
2407 King Richard Leek
2411 King Sieg Leek
2425 Bleu de Solaize Leek
2426 Siegfried Frost Leek

PEAS pp 55–56

758 Emerald Archer shell
761 Green Arrow shell
772 Miragreen shell
819 Oregon Giant snow
882 Blizzard snow
827 Oregon Sugar Pod snow
833 Sumo snow
883 Sugar Ann snap
884 Mega snap
886 Sugar Lode snap
889 Cascadia snap
893 Sugar Snap

PEPPERS pp 57–61

3704 Peacework
3713 King of the North
3725 Staddon’s Select
3706 Gilboa
3723 Purple Beauty
web Goldrush Golden Eclat
3739 Corona
3738 Klari Baby Cheese
3740 Sweet Pimiento
3747 Banana
3757 Carmen F-1 hybrid
3762 Jimmy Nardello’s
3759 Boldog Hungarian Spice
3764 Apple
3776 Feher Ozon
3816 Czech Black
web Jaluv An Attitude
web Carrot Bomb
3866 Matchbox
3849 Fish
3860 Thai Hot
3876 Habanada

RADISHES pp 62–63

2219 Rudolf
2253 Plum Purple
2269 Misato Rose
2268 Green Meat

SPINACH pg 64

2500 Beaujolais
2509 Space F-1 hybrid
2538 Tundra F-1 hybrid
2541 Bloomsdale
2558 Winter Bloomsdale

SQUASH: SUMMER & ZUKES pp 65–67

1539 Early Summer Yellow
1577 Y-Star Patty Pan F-1 hybrid
1405 Green Machine F-1 hybrid
1407 Modena F-1 hybrid
1415 Lagoda F-1 hybrid
1530 Goldini II
1457 Costata Romanesca

SQUASH: WINTER & PUMPKIN pp 68–73

1606 Sweet REBA Acorn
1607 Thelma Saunders Acorn
1611 Zeppelin Delicata
1630 Uncle David’s Dakota Dessert
1631 Seneca Buttercup
1623 Turtle Moon Blue Kuri
web Baby Blue Hubbard
1683 Burpee’s Butterbush
1688 Waltham Butternut
1677 Lower Salmon River
1672 Galeux d’Eysines
1676 Candy Roaster
1693 Seminole
1718 Winter Luxury
1720 New England Pie
1723 Long Pie
1752 Howden

TOMATILLOS pg 73

4010 Queen of Malinalco
4012 Purple Blush
4005 Aunt Molly’s Ground Cherry

TOMATOES pp 74–81

4149 Heirloom Blend

Slicers

web Glacier
4025 Oregon Spring
4038 Cosmonaut Volkov
4049 Pruden’s Purple
4050 Bizhiki
4052 KC 146
4056 Rutgers Schermerhorn
4067 Rose de Berne
4069 German Johnson
4075 Pink Brandywine
4082 Weisnicht’s Ukrainian
4087 Tiffen Mennonite
4238 Luci 2103 F-1 hybrid
4041 Pink Berkeley Tie-Dye
4048 Mountain Spirit
4053 Black Prince
4054 Goldie
4057 Green Zebra
4058 Green Cherokee
4059 Cherokee Purple
4060 Paul Robeson
4061 Black Krim
4062 Chocolate Stripes Improved
4065 Golden Jubilee
4076 Yellow Brandywine
4077 Pineapple
4080 Aunt Ruby’s German Green

Paste Tomatoes

4125 Heinz 2653
4131 Grandma Mary’s
4133 Bellstar
4134 Sheboygan
4137 Orange Banana
4138 Speckled Roman
4140 Amish Paste
4141 Hog Heart
4146 Blue Beech

Small Tomatoes

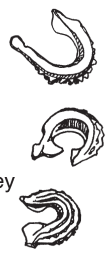
4103 Gardener’s Sweetheart
4106 Honeydrop
4105 Pink Princess Gene Pool
4108 Be My Baby
4035 Tropical Sunset
4109 Gardener’s Delight
4110 Sweet Aperitif
4115 Black Cherry
4118 Principe Borghese
4119 Peacevine
4252 Esterina F-1 hybrid
4265 Cherry Bomb F-1 hybrid

TURNIPS pg 82

2379 Purple Top White Globe
2393 Gilfeather

HERBS pp 86–91

4407 Anise Hyssop
4409 Arnica Chamissonis
4411 Ashwagandha
4412 Astragalus
4415 Sweet Basil
4419 Genovese Basil
4468 Kapoor Tulsi Basil
4471 Flowering Thai Basil
4481 Wild Bergamot
4491 Borage
3045 Chervil
4513 Chives
4514 Leisure Cilantro
4517 Caribe Cilantro
4521 Codonopsis
4531 Bouquet Dill
4547 Echinacea
4550 Elecampane
4552 Epazote
4560 Fennel (for seed)
4569 Fenugreek
4572 Feverfew
4619 Marshmallow
4639 Motherwort
4644 Stinging Nettle
4649 Zaatar Oregano
3159 Gigante d’Italia
3169 Krausa Parsley
3170 Plain Leaf Parsley
4657 Rosemary
4679 Skullcap
4683 Spilanthes
4692 Blue Vervain



FLOWERS pp 94–110

4822 White Alyssum
4832 Hot Biscuits Amaranth
4835 Hopi Red Dye Amaranth
4837 Elephant Head Amaranth
4852 Crego Mix China Aster
4868 Jubilee Gem Bach. Button
4911 Flashback Calendula
4913 Kablouna Calendula
4925 Resina Calendula
4927 Solar Flashback Calendula
4929 Zeolights Calendula
4950 Ruby Parfait Celosia
4989 Cleome Mix
5017 Cupcakes Cosmos
5025 Dwarf Sensation Cosmos
5111 Grace Mix Godetia
web Job’s Tears
5154 Kiss Me Over the Garden
5157 White Finch Laceflower
5277 Kniola’s Morning Glory
5300 Only the Lonely Nicotiana
5350 Elka Poppy
5366 Drama Queen Poppy
5371 Fluffy Ruffles Poppy
5377 Large Lavender Poppy
5385 Dara Queen Anne’s Lace
5423 Northern Sea Oats
5500 Autumn Beauty Sunflower
5501 Evening Sun Sunflower
5515 Lemon Queen Sunflower
5539 Selma Suns Mix Sunflower
5560 Zohar F-1 hybrid Sunflower
5603 Sweet Annie
5616 April in Paris Sweet Pea
5622 Blue Celeste Sweet Pea
web Black Eagle Wheat
4324 Utrecht Blue Wheat
5708 Benary’s Giants Mix Zinnia
5713 California Giant Zinnia
5720 Jim Baggett’s Choice Mix
5906 Hopi Black Dye Sunflower
5914 Madder

Fedco Does Not Knowingly Carry Genetically Engineered Seeds

At our 1996 Annual Meeting we voted unanimously not to knowingly offer for sale any genetically engineered variety because the new gene technologies pose unacceptable risks to the environment. In 1999 we affirmed and clarified that position and will follow the guidelines of the Organic Materials Review Institute (OMRI) which prohibit the use of genetically engineered organisms in organic crop production. OMRI uses the National Organic Standards Board (NOSB) definition of genetic engineering.

Please note the word “knowingly.” Because of the possibility of contamination, over which we have no control, our pledge necessarily stops short of being an absolute guarantee. Although we will not sell any variety represented to us as genetically engineered, and we refuse any lot of seed that tests positive for GMO content at the lowest detection limit of 0.01%, we will not be held legally responsible if any of our seed tests positive for genetically modified organisms. We apologize for having to split legal hairs, but we all share the reality of genetic drift.

We test beet, chard and sweet corn seed for transgenic contamination. See page 24 for more information.

Fedco’s Commitment to Transparency and Seed Savers’ Rights

Some seed varieties have intellectual property (IP) restrictions that we must agree to in order to offer the seeds. These restrictions challenge some or all of the four seed freedoms (see page 4). Such restrictions come in several forms:

- Utility patents or trait patents restrict all four seed freedoms. **Fedco does not knowingly sell trait- or utility-patented varieties.** See an explanation of our opposition on page 41.
- Licenses that allow us to produce proprietary seed in exchange for royalties, but forbid using it for selection and breeding purposes, restricting the fourth freedom. Fedco offers two such varieties, under license from Cornell: Silver Slicer cucumber (page 28) and Peacework pepper (page 57).
- The Plant Variety Protection Act (PVP), a form of limited patent protection that restricts the freedom to sell or share with others, but allows seed saving for own use or breeding purposes. We label all the PVPs in their descriptions.

Although a few multinationals are aggressively pursuing protection of IP, many other companies are labeling IP only to guard against having their breeding appropriated by those bigger companies, and have no current intentions of litigating against home gardeners for saving seed.

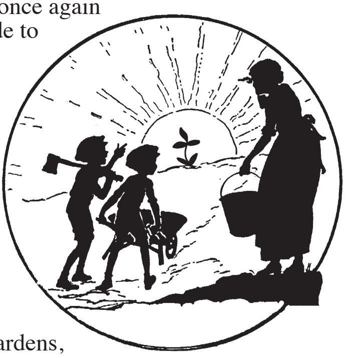
Fedco Seeds guarantees that all items we offer are fully satisfactory. If you are dissatisfied because of any product defect, we will either replace the item or refund the purchase price. **Limitation of Liability:** Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price of the seeds, as is customary in the seed trade. The liability of Fedco Seeds for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

Claims for errors in your order must be presented within 30 days of receipt of your order. Claims for defects in Fedco Seeds’ products should be presented to Fedco Seeds as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

ORGANIC GROWERS SUPPLY

Welcome to our 2024 Organic Growers Supply catalog!

We are excited to greet everyone once again with open doors and hearts flung wide to the joy and grief and wildness of our gardens and farms. The mighty web that connects Fedco workers and customers alike is the Earth, where we plant and tend our seeds, and which tends and feeds us in return. Despite, by all appearances, a growing chasm of polarity within the democratic experiment, we find our shared values year after year when we dig into the fertile soil that sustains us all.



Even in the sanctuaries of our gardens, we can't escape the heartache and challenges facing our communities. It was a rough spring for us in central Maine; longer, wetter and colder than it's been in more than a decade, followed by an unreasonably hot summer. As we entered autumn, we found ourselves cleaning up after a rare hurricane made landfall. Yet we've been more fortunate than many. Drought and fires have ravaged the boreal forests to our north and west, clouding the sun with smoke for days at a time. A horrific and prolonged deadly heat blanketed the Southwest. Our neighbors in Vermont are still rebuilding after a devastating hundred-year flood. How many gardens, both tended and wild, were burned, drowned or scorched this year? We all share this grief.

Yet gardeners are resourceful. We will save what seeds we can and replant next season. The garden grounds us, replenishes us, and quite literally feeds us. At Organic Growers Supply, we strive to offer sensible affordable supplies and tools that will help growers at all scales to nurture the plants that sustain our families and wider communities.

A few highlights in this year's listing:

- We are thrilled to reintroduce the beloved **Green Mountain potato**, tenderly pulled back from the brink of extinction.
- For folks with smaller plots, we've introduced **half-pound package sizes of onion and shallot sets**.
- Our new **Turbo Seed Starter** is a more sustainable potting mix that's made without peat, thus protecting fragile ecosystems.
- For a bit of fun, we've added a new **Fedco trucker cap**, featuring artwork by our longtime co-worker Sarah Oliver.
- More and more growers are excluding pests with **durable ProtekNet** insect netting, and we've added an even heavier-duty option that boasts a 4–5 year lifespan.
- We've expanded our **pole pruner** line. Keep those fruit trees healthy and shipshape!

Finally, we are especially glad to welcome new leadership to our operation. On behalf of the OGS team and our entire work collective, we welcome aboard Jen Goff, who is already moving us forward as we navigate increasing climatic and economic turbulence. Jen brings years of agricultural product-development experience and business savvy, with just as much garden soil under her fingernails as the rest of us.

Happy planting,
– Noah Dillard, on behalf of OGS

Supplier Codes Know where your seed comes from! This unique Fedco feature provides information about the source(s) of each seed variety. For more info about supplier codes, see page 4.

① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③-⑤ None of our potatoes or farm seed comes from larger corporations!

Indigenous Royalties We pay royalties for products that bear Native American names. These royalties will go to Nibezun, a project of the Wabanaki community here in Maine. (See page 4.) This program is one small way to raise awareness of the agricultural traditions that predate European colonization of this continent and to support the descendants of those communities today.

NEW! and BACK! for 2024

Potatoes, Onions & Exotics:

7410 Ebenezer onion sets: Far from a humbug!
7415 Sweet Globe onion sets: No misnomer with these sugary orbs!
7495 White Spanish onion plants: ¡Sí, por favor!
7983 Beauregard sweet potato: Serve these sweeties to your beau!
7985 O'Henry sweet potato: Don't sell your hair or watch—give the gift of sweets!
7987 Covington sweet potato: Stop Covington your neighbor's—grow your own!
7990 Vardaman sweet potato: Packed with vardamans and minerals!
7252 All Blue Organic midseason potato: Actually purple, but whatever!
7890 Green Mountain late potato: Saved from the brink of extinction!

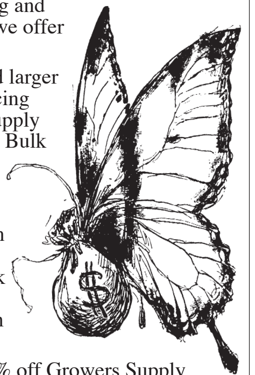
Cover Crops & Supplies:

8006 Hulless Barley: There's barley any processing needed to eat it!
8143 Glenn Spring Wheat: Wheat a second—a new grain to try?!
8270 Kelp Liquid Concentrate: Twice as potent—it oughta kelp your plants!
8271 Organic High Brix Molasses: Plants have a sweet tooth, too!
8319 5G Grow Great Garlic Greener Guaranteed Kit: Join our network to broadcast & download high-fidelity garlic fertility!
8362 Rainbow Valley Compost: Expert composting leprechauns were sprung from prism; it was a light sentence!
8363 Peat-free Turbo Seed Starter: Switch to eco-friendly soil, for peat's sake!
8401 EcoMulch Heavy Duty: Weed barriers don't get mulch better than this!
8404 WeedGuard Circles, Heavy Weight: Makes mulching as easy as pi!
8712 CannControl: Controls both fungal and insect pests! Cann I get a witness?
8812-8814 Mini Wini Seedling Trays: Grow winning seedlings in cute trays!
8815 Winstrip 128-cell Tray: We haven't a trays of doubt that you'll love this!
8831 Indestructible Bottom Tray: These trays destroy the competition!
8861 Easy-Drape Rip-Stop Bird Netting: Netting can stop this plant protection!
8874 ProtekNet 47g: A net gain for lasting pest exclusion!
8887 Mutineer Adapter Head and Handle: Join the hoe rebellion! Or hoedown?
8888 Set of 4 Wire Weeder Heads: Wire limit yourself to just one head?
8889 Set of 2 Collinear Hoe Heads: If you like one-liners, here are two!
8890 Large Torsion Weeder Head: So effective at weeding, you'll do The Twist!
8927 Planting Auger: We drilled down on augers, and hit paydirt with this one!
9050 Cut & Hold Pruner: Moth definitely your best bet for Browntail removal!
9051 Fiskars Power Pole Pruner: We poled pros—they cut straight to this one!
9057 Saw Blade for Fiskars Pole Pruner: See what we saw and decided to carry!
9201 RainSelect Wand: Wave this magic wand and watch your garden flourish!
9208 Fogg-It Nozzle: To fine-tune your watering, this head is not to be mist!
9305 36" Tall Tree ID Plates: Solve the perennial problem of plant ID!
9360 Airlock Fermentation Kit: Go bacteria roots and ferment more food!
9394 The Bamboo Gardener Rubber Palm Gloves: These gloves never tire!
9396 The Bamboo Gardener Nitrile Palm Gloves: Great fiber for gloves!
9404 Organic Fedco Caps: It's finally cotton through that folks want OG wear!
9405 Fedco Trucker Cap: We were driven to offer a new style!

Books:

9461 *Fedco Coloring Book* by the Fedco catalog crew
9490 *The Beginner's Guide To Growing Cannabis* by Tammi Sweet
9500 *A Beginner's Guide To Recognizing Trees Of The Northeast* by Mark Mikolas
9507 *Black Earth Wisdom* by Leah Penniman
9542 *The Ecological Farm* by Helen Atthowe
9557 *Farmers Of Forty Centuries* by F.H. King
9580 *A Gardener's Guide To Botany* by Scott Zona
9611 *Growing Plant Medicine, Volume One* by Richo Cech
9645 *Lawns Into Meadows* by Owen Wormser
9648 *The Lean Micro-Farm* by Ben Hartman
9665 *Miso, Tempeh, Natto & Other Tasty Ferments* by Kirsten and Christopher Shockey
9727 *Raising Resilient Bees* by Eric and Joy McEwen
9743 *Sam Thayer's Field Guide To Edible Wild Plants* by Samuel Thayer
9762 *The Small-Scale Poultry Flock*, revised edition, by Harvey Ussery
9814 *What We Sow* by Jennifer Jewell

So Many Ways to Save on Potatoes and Supplies!



Fedco is a big believer in the powers of planning and cooperation to save our customers money, and we offer many opportunities to do so:

Bulk Pricing - Most commercial customers and larger group orders can easily qualify for our bulk pricing program, which kicks in for Organic Grower Supply and Potato orders with a retail value of $1200+. Bulk pricing offers discounts of 20–30% off retail. Call or write for a bulk price list.

Rolling Discounts - We love our repeat customers! If you have ordered at least $1200 in products from Organic Growers Supply in the previous 12-month period, you will receive bulk pricing on your OGS order. (Does not apply to potato orders.) Questions: ogs@fedcoseeds.com

Early Bird Discount - Our crew gets bored sometimes in December, so we offer an extra 5% off Growers Supply orders placed before December 31 and delivered or picked up by January 13. (Does not apply to orders receiving bulk pricing.)

Group Ordering - Team up with your friends and neighbors to get bulk pricing! Group orders can also share a pallet to reduce shipping costs. We make it easy and painless. For instructions, please visit fedcoseeds.com/ogs/groups.htm.

Truck Shipping - For orders that weigh more than a few hundred pounds, shipping on a pallet instead of in a box can be very economical. See page 174 for more info.

Depot Shipping - We have farms and storefronts throughout the Northeast lined up to accept pallet shipments of Growers Supply goods and seed potatoes so our customers can pick up their orders close to home at shipping costs up to 80% lower than FedEx rates. See page 174.

Special Ordering - Many of our soil amendments are available in bulk totes or full truckloads. We can also offer very reasonable prices on items special-ordered from our suppliers if we have enough lead time and don't need to warehouse the items for you. Contact us at ogs@fedcoseeds.com

Why did our 50 lb size shrink to 45 lb? We're not cheapskates— we're saving you money!

Last year we noticed FedEx was charging us thousands of dollars in handling fees for all our packages weighing 50 lb or more. To avoid these fees and to keep our prices as low as possible, we've reduced our largest bag/box size to 45 lb for any potatoes and amendments we repack.

ORGANIC CERTIFICATION

We are a MOFGA-certified organic repacker and handler of seed and feed. Organically produced items (with **Organic** in the name) are certified by USDA-approved agencies. We have on file each grower's certificate; our products are labeled and handled in ways to ensure their integrity. The receipt with your order has our certification number and is your certificate that what you purchased is organic. Please keep it for your records.

Conventionally grown seed is either untreated or coated with OMRI-listed coatings and inoculants. Certified-organic growers may be able to use such seed: consult with your certifier.

We sometimes have short crops or failed lots. We do occasionally substitute conventional varieties unless you note otherwise. Please see our substitution policy (at right).

Agricultural inputs used on a certified-organic farm must be listed in your Organic System Plan and approved by your certifier. This does not necessarily mean that the inputs themselves are certified organic. We label the inputs we carry as follows:

OMRI: Listed by the Organic Materials Review Institute. Certificate available upon request, or on our website.

MOFGA: Reviewed and allowed by the Maine Organic Farmers & Gardeners Association Certification Services.

WSDA: Listed by the Washington State Department of Agriculture's Organic Certification division.

Nat'l List: One-ingredient products on the NOP List of Allowed Substances.

AYC: Ask your certifier. Has not been reviewed by a certifier, but the active ingredient is allowed.

Not Allowed: Has a place in sensible agriculture; may be used when certification is not an issue.

This information is correct to the best of our knowledge at press time. We cannot be responsible for errors or changes; changes are posted to our website as we become aware of them. In order to be certain that a product is allowed, check with your certifier.

POTATOES, ONIONS & EXOTICS SPRING PLANTING STOCK

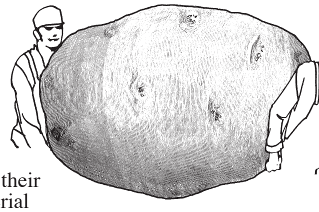
The items on pages 116-122 ship in spring only.
Product availability is updated regularly at fedcoseeds.com. You'll find more ordering info on page 168. For mail orders, use the form on page 171.

- **Ginger and Turmeric** ship in late February.
- **Potatoes and onion/shallot sets** ship in April and May.
- **Onion plants and sweet potato slips** are shipped based on your location, subject to our suppliers' field conditions; see next page.

Ordering Deadlines for Potatoes, Onions & Exotics

February 23	For ginger and turmeric.
March 8	For best availability of potatoes, and early April shipping to warm states.
late spring	Ordering closes when we sell out. *Don't delay!*

What is Certified Potato Seed?



All certified seed potatoes start as disease-free clones and are sold to seed growers as mini-tubers. In Maine, seed potato growers are allowed to replant for four years before they need to start again with disease-free stock. Each year during the growing season, farmers seeking certification have their fields inspected for viral and bacterial diseases. After harvest the farmers must submit a sample of each variety for disease testing at the Maine Potato Testing Lab. To be labeled and sold as certified potato seed, lots need to be 100% free of certain pathogens and at least 95% free of others. **We sell *only* certified potato seed.**

We also offer many varieties that are **certified organic**. Their growers have met both the standards of potato seed certification and the standards of organic production.

None of our varieties are genetically engineered. See page 113 for Fedco's policy on GMOs.

Substitutions

Potatoes are subject to crop limitations, and we will run out of some varieties. Most people prefer getting potatoes to getting a refund, so we offer a **substitution policy** for those willing to be flexible. However, we cannot offer substitutes in all cases. We ship more than 9000 potato orders in a period of four weeks with a small staff. We regret that in most cases we CANNOT contact individual customers about out-of-stock varieties in advance, nor can we offer any guarantee that we will process custom substitution requests. *Please do not ask us to do so*.

Substitution Policy

If you indicate that you will accept substitutions, we'll follow this protocol:

For conventionally grown varieties -
- We will substitute a variety of similar color and season.

For organically grown varieties -
- We will substitute conventional stock of the same variety and refund the price difference.
- If that's not available, we will substitute certified organic stock of a similar variety.

A few unusual varieties have no substitutes, as noted in their descriptions. If we cannot fill your order for these items, you will receive a refund instead of a substitute.

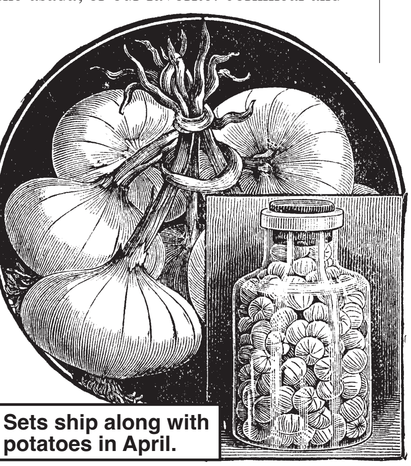
ONION & SHALLOT SETS

ONION SETS

Approx. 100–130 onion sets per pound.

Stuttgarter Onion Sets OP. Long day. These small- to medium-sized semi-flat firm **yellow** onions will store until June if cured properly. Try them in creamy onion dip, or sliced on carne asada, or our favorite: cornmeal and beer-battered onion rings. ②

***7400 A**: 0.5# (0#) for $5.00*
***B**: 2# for $14.00*
***C**: 10# for $25.00*
***E**: 32# for $49.00*



Sets ship along with potatoes in April.

Red Baron Onion Sets OP. Long day. Nothing compares to a grilled BLT with some of these sweet **red** onions, thinly sliced and topped with the juiciest pink Brandywine, crunchiest leaf lettuce and a thick slab of fried pork belly. Red Baron yields bulbs in the 3" range that store decently and show off a stunning maroon skin. We love this fresh-eating onion for sandwiches and salads. ②

***7405 A**: 0.5# (0#) for $5.00*
***B**: 2# for $14.00*
***C**: 10# for $25.00*
***E**: 32# for $49.00*

Ebenezer White Onion Sets OP. Long day. Bright crystal **white** orbs with delicate papery skin. Plant close for small bunching onions, or give them room to size up into uniform round slicers. Very sweet, great for fresh eating. They don't store long, so use them up in guacamole, on burgers and in salads. ② **BACK!**

***7410 A**: 0.5# (0#) for $5.00* ***B**: 2# for $14.00*
***C**: 10# for $25.00* ***E**: 32# for $49.00*

Sweet Globe Onion Sets F-1 hybrid. Long day. The absolute best for caramelizing, and mild enough for fresh eating. Large to jumbo **yellow** globes have delicate skins and tight necks for quick curing, though they don't store long. ② **NEW!**

***7415 A**: 0.5# (0#) for $5.00* ***B**: 2# for $14.00*
***C**: 10# for $25.00* ***E**: 32# for $49.00*

SHALLOT SETS

Approx. 80–100 shallot sets per pound.

Monique Shallot Sets F-1 hybrid. Long-day single-headed shallots are shaped like pointy holiday lights. Pink skins fade to bronze as they cure. All the sweet flavor and fragrance of more traditional shallots. They store well through winter—the single bulb doesn't harbor pockets of moisture that can sometimes cause storage issues with multi-headed bunching shallots. ②

***7425 A**: 0.5# (0#) for $12.50* ***B**: 2# for $35.00*
***C**: 10# for $120.00* ***E**: 32# for $212.50*

Nero Shallot Sets F-1 hybrid. Long-day traditional bunching shallot. Copper skin covering teardrop-shaped bulbs with sweet fragrant melting shallot goodness. ②

***7430 A**: 0.5# (0#) for $12.50*
***B**: 2# for $35.00*
***C**: 10# for $120.00*
***E**: 32# for $212.50*

Roderique Shallot Sets OP. Long-day traditional French *échalion* or banana-shaped shallot. A standout variety for connoisseurs and prized for French cuisine. Tall narrow uniform copper-skinned bulbs are white-fleshed and quick to peel with a single slice up the side. Like most shallots, they will keep longer than other alliums in the pantry, and you'll be giving your meals a gourmet flavor all winter, spring and summer. ②

***7440 A**: 0.5# (0#) for $12.50* ***B**: 2# for $35.00*
***C**: 10# for $120.00* ***E**: 32# for $212.50*

Growing Onions and Shallots - *Allium cepa*

Onions and shallots are day-length sensitive—to produce large bulbs, plant in spring as soon as soil is workable. Most of our sets and plants are long-day varieties, suitable for northern growers. Shallow rooted, onions require rich weed-free soil and consistent water. All other factors being equal, alliums grown from seedlings will grow bigger and resist disease better than those grown from sets.

Plant 3" apart in rows 1' apart and thin to 6" as they grow. (If you don't want to thin, plant them 4–6" apart.) Mulch when they are 1' tall. During the season, pull any plants that begin to bolt and use them as scallions. It's a good idea to sidedress once or twice a season, especially close to summer solstice. Clean and grade before storage. Eat thick-necked onions and shallots first because they won't keep. Ideal storage conditions are temperatures at 32˚ with humidity of 60–70%. If you can't do that, work to get a total number of 100. For example, at temperatures from 50–55˚, humidity should be 45–50%.

For alliums seeds and more cultural information, see pages 51–53.

***Note:** We cannot ship sets and onion plants to certain counties in Idaho.*

ONION PLANTS

Onion Plant ship dates

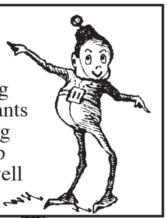
Zone 10, 9, 8	begins mid-January
Zone 7	begins mid-February
Zone 6	begins early March
Zone 5	begins early April
Zone 4, 3, 2	begins mid-April

Onion plants are drop-shipped Priority Mail directly to you from our Texas supplier, so shipments can arrive from January through April according to your planting zone. (See chart.)

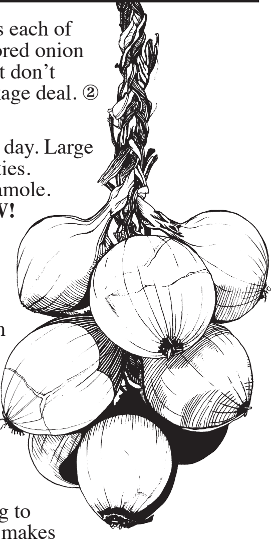
You may also request a shipping week when placing your order. Onions are dug as live plants from the field; shipping schedule may be delayed by a week or two due to weather conditions or other variables. You will be notified via email when your order has shipped.

Planting instructions (for conventional growing) will arrive with your shipment. See our website for organic fertilization recommendations.

When Your Onion Plants Arrive:



Remove plants from the box immediately! They may seem a little peaked from travel, but don't fret! Plant them in the ground as soon as possible, watering well. If you can't plant immediately, unbundle the plants and heel them into moist potting medium in a seedling tray, or wrap the roots in damp paper towels and wrap loosely in plastic. After planting, keep onion plants well watered and well weeded, and you'll be rewarded!



Gardener's Onion Plant Medley 50 plants each of **three varieties** (our choice) of differently colored onion plants. If you want an assortment of onions but don't have space for a hundred of each, try this package deal. ②

***7490 A**: 150 plants (0#) for $50.00*

White Spanish (104 days) F-1 hybrid. Long day. Large **white** globes lack the sharpness of other varieties. Delicious raw in sandwiches, salads and guacamole. They don't store long, so eat them up! ② **NEW!**

***7495 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*

Patterson (104 days) F-1 hybrid. Long day. Blocky-globed rusty-bronze–skinned Patterson has emerged as our new go-to **yellow** storage onion. Large, uniform size, thin necks for easy curing, and excellent storage potential. Available as seed on page 52. ②

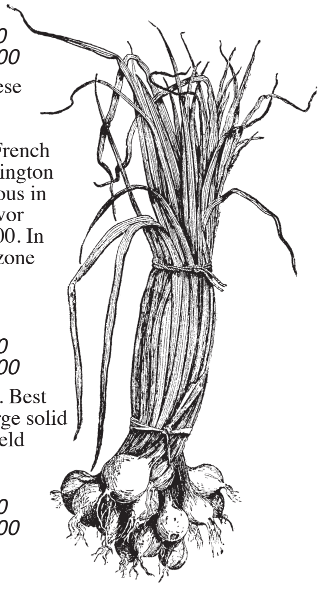
***7500 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*

Yellow Sweet Spanish (100 days) OP. Long to intermediate day. A wonderful OP variety that makes large globe-shaped uniformly sweet bulbs. Really great fresh, and will store up to 4 months with proper curing. ②

***7510 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*

Yellow Granex (125 days) F-1 hybrid. Short day. *Not for northern growers,* better planted south of the NC-VA border. This is the variety that growers in Vidalia, GA, use to grow their world-famous sweet onions. You can't call them Vidalia onions unless that's where you live, but you can still grow some mighty sweet onions. Will store for a couple months if well cured. ②

***7519 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*



Walla Walla (125 days) OP. Long day. These large **yellow** onions are renowned for their mild flavor as soon as they come out of the ground. Said to have originated on the French island of Corsica and been brought to Washington by a French soldier, this onion became famous in the Pacific Northwest for its juicy sweet flavor and has been in commerce since around 1900. In WA it can be wintered over. In our harsher zone it must be planted in spring for fall harvest. They do not store. See page 51 for seed. ②

***7520 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*

Redwing (116 days) F-1 hybrid. Long day. Best **red** storage onion for northern growers. Large solid glossy deep purple-red globes. Very high yield potential. ②

***7550 A**: 100 plants (0#) for $34.50*
***B**: 500 plants (0#) for $157.50*
***C**: 2500 plants (0#) for $695.00*

Items on this page ship in spring.

GINGER & TURMERIC

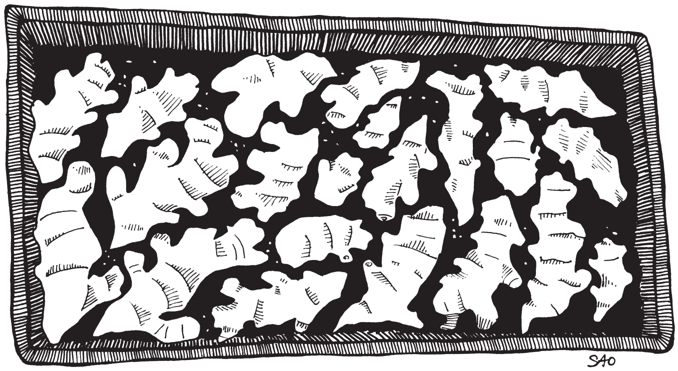
About 10–15 seed pieces per pound.

Ginger and turmeric ship in late February, or as soon as weather permits.

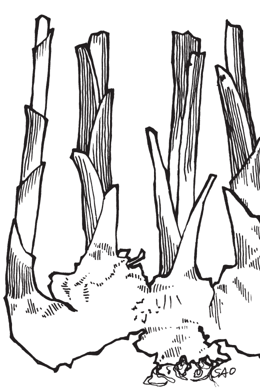
If you can't begin sprouting right away, ginger and turmeric stock can be stored for several weeks, at above 65°. Definitely start sprouting them by mid-April.

For New England, we recommend growing ginger and turmeric in hoophouses. They need the heat. To sprout your stock, spread 3" of good potting soil in a crate, arrange rhizomes so they aren't touching, and add soil to cover by a few inches. If you order a large quantity of ginger, it may arrive in big hands that need to be cut before planting; for turmeric, snap off some of the larger "fingers" and plant the main rhizome with a few of the smaller "fingers" still attached. Keep the crate at 80° in a sunny place, and keep soil moist but not water-logged. They're sensitive to overwatering, but most sprouting failures are due to low or fluctuating temps. After last frost, plant out at 5" apart, in a fertile 6"-deep trench down a 4'-wide bed, and hill during the season. Harvest before frost.

In an attempt to expedite sprouting of ginger and turmeric, longtime Fedco staffer Bria soaked seed pieces in a 3% hydrogen peroxide solution for 24 hours by her south window. She then followed our regular sprouting instructions. She was amazed at the speed with which they broke dormancy!

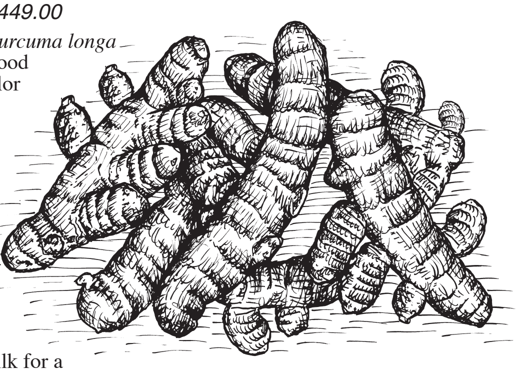


Ginger - Organic *Zingiber officinale* Ginger in this climate? Combine high tunnels, irrigation and organic fertility and you can produce a coveted hand of baby ginger with rose-tinted pearlescent skin. Its beauty eclipses supermarket ginger. Let this precious gem shine as crystallized chunks in vanilla ice cream, or sliced into thick batons in a zesty stir-fry, or slipped over the rim of a fancy cocktail. Growing instructions available on our website. Supply limited—order early. *Shipped late February, or as soon as weather permits.* ②



7970 ***A**: 0.5# (0#) for $20.25*
***B**: 2# for $54.00*
***C**: 10# for $199.00*
***D**: 25# for $449.00*

Turmeric - Organic *Curcuma longa* This spunky little superfood adds ebullient golden color to curries and sauces. Anti-inflammatory, antiseptic, antioxidant, anticarcinogenic—northern growers better get their high-tunnels built! Lighter yields than ginger, but market customers will pay top dollar. Blend fresh turmeric and local wildflower honey into gently warmed whole milk for a delicious restorative tonic. Cultivate like ginger—instructions are on our website. *Shipped late February, or as soon as weather permits.* ②



7971 ***A**: 0.5# (0#) for $20.25* ***B**: 2# for $54.00*
***C**: 10# for $199.00* ***D**: 25# for $449.00*

Supplier Codes Know where your seed comes from! This unique Fedco feature provides information about the source(s) of each seed variety. For more info about supplier codes, see page 4.

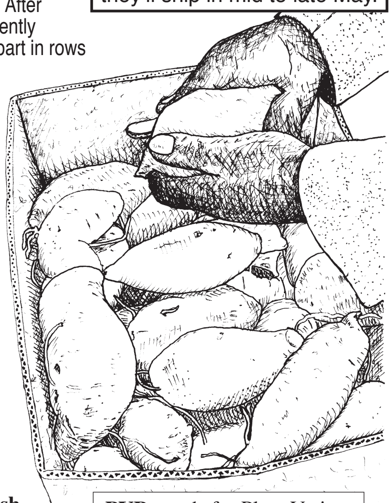
① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③-⑤ None of our potatoes or farm seed come from larger corporations!

SWEET POTATO SLIPS

Ipomoea batatas

Sweet potato slips ship by region. In the Northeast they'll ship in mid to late May.

Sweet potatoes are no fussier than winter squash—if you can grow butternut, you can grow sweet potatoes! They prefer rich slightly acidic soil that is high in potassium. After danger of frost, when soil is consistently above 55–60°, plant slips 12–18" apart in rows 36" apart, hilled up or in raised beds covered with **8421** IRT plastic mulch. For extra heat, cover with **8877** slitted plastic row cover over **8880** wire hoops. Fertilize regularly with **8292** Fish Hydrolysate with Kelp. Dig tubers soon after first frost kills the vines. Handle gently; damaged tubers won't store as well. To cure for storage, spread them out in a warm place for a few weeks; a hoophouse or warm part of the house will work. Once cured and dry, wrap individually in newsprint (or store in a breathable covered container), and keep in a cool to room-temp place (55–70°). They'll keep for several months.



PVP stands for Plant Variety Protection Act. See page 4.

Georgia Jet (90 days) **Deep red skin, deep orange flesh.** The standard variety for commercial sweet potato production in the North, Georgia Jet is almost irritatingly reliable in colder climes—bulks up fast and yields like a boss. Moist flesh is moderately sweet. ②

7980 ***A**: 25 slips (0#) for $39.00* ***B**: 100 slips (0#) for $75.00*
***C**: 500 slips (0#) for 280.00*

Beauregard (90-100 days) **Red skin, orange flesh.** A well-known staple variety in the U.S. Grows vigorously and sizes up nicely. Heavy yields of silky smooth, sweet but not too sweet potatoes will await your grubby little paws in the fall. ② **NEW!**

7983 ***A**: 25 slips (0#) for $39.00* ***B**: 100 slips (0#) for $75.00*
***C**: 500 slips (0#) for 280.00*

O'Henry (90-100 days) **Buff skin, creamy white flesh.** Replaces Bonita, and is much less finicky to grow and store. Smooth flesh with flavor more on the savory end of the sweet potato spectrum. Versatile, perfect for a roasted veggie medley or to lend depth to mashed potatoes. Makes a good substitute for regular potatoes, so folks avoiding nightshades should give it a try. ② **NEW!**

7985 ***A**: 25 slips (0#) for $39.00* ***B**: 100 slips (0#) for $75.00*
***C**: 500 slips (0#) for 280.00*

Covington (100 days) **Rose skin, dark orange flesh.** This newer variety from the NC State University breeding program is quickly gaining popularity with gardeners and market growers alike. Superb flavor, luscious texture and a forgiving growing habit sets this variety apart from the rest. Heavy yields of uniform tubers that can be left in the ground without as much risk of cracking as varieties like Beauregard. They set their tubers in tight bunches making them easy to harvest. **PVP.** ② **NEW!**

7987 ***A**: 25 slips (0#) for $43.00* ***B**: 100 slips (0#) for $82.50*
***C**: 500 slips (0#) for 310.00*

Vardaman (100-110 days) **Golden skin, bright orange flesh.** A rare bush variety, this sweet potato is a good choice for smaller spaces like raised beds and containers. Very ornamental, with purple leaves that turn green as they mature. Firm flesh holds up to roasting and frying, and also means they keep longer in storage. ② **NEW!**

7990 ***A**: 25 slips (0#) for $39.00* ***B**: 100 slips (0#) for $75.00*
***C**: 500 slips (0#) for 280.00*

Murasaki (120 days) **Purple skin, white flesh.** Japanese-type sweet potato requires a longer season to mature; it may pose a challenge to northern growers, but the eating quality is unbeatable. Rich nutty flavor and high sugar content. A shoo-in for our southern customers. If you're one of those Yankee gardeners who can't back down from a dare (who says you can't grow figs in Maine?), this is the sweet for you. Well worth the effort. ②

7999 ***A**: 25 slips (0#) for $39.00* ***B**: 100 slips (0#) for $75.00*
***C**: 500 slips (0#) for 280.00*

Sweet potato slips are shipped by region, not by climate zone. See our website for a map. In the Northeast they ship in mid to late May. If you live in a colder microclimate than your surrounding region, please let us know in the comments section when placing your order, and we'll adjust your ship date.

When Your Sweet Potato Slips Arrive:

If you can't plant right away, put slips in a vase of water in a warm sunny location. Slips that arrive with few leaves or roots are still likely to perform well; if the slips arrive slimy and rotten, please email us with pictures.

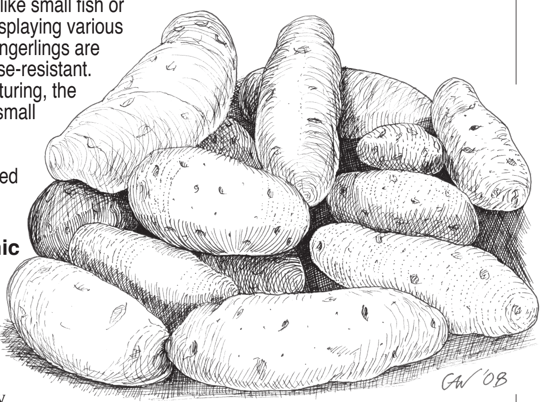
If shipping weight in parentheses is (0#), the item qualifies for free shipping!

SEED POTATOES

Solanum tuberosum

One pound of seed will usually plant 5–8 row feet, depending on the variety; 10# will usually plant 50 row feet. See pages 123-124 for complete growing instructions and a comparison chart. We ship seed potatoes in April. Order early for the best selection!

FINGERLINGS



Long and thin, shaped like small fish or maybe even fingers, displaying various skin and flesh colors, fingerlings are often prolific and disease-resistant. Though mostly late maturing, the plants set heavily and small ones can be harvested early. These beautiful potatoes have unequaled culinary qualities and flavor.

AmaRosa - Organic
Red skin, red flesh. These plants cranked out such monster tubers we felt funny charging fingerling prices at market. Classically plump fingerling shape with smooth red skin and creamy red flesh with excellent color retention, AmaRosa made the grade for high yields, and they're tasty as heck. Leave the skins on when cooking, as they have a high vitamin C and mineral content. Good keepers and good sellers. Scab resistant, and also some resistance to late blight. **PVP.** ①②

7100 B: 2# for $17.25 C: 10# for $56.75
D: 25# for $112.00 E: 45# for $165.25

Austrian Crescent - Yellow skin, pale yellow flesh. As lovely as the rising crescent moon on a summer's eve, with unearthly yields. Some sources mention Austrian Crescent tubers as long as 10"—giant fingers! Also called *Kipfel*, the German word for a croissant. Croissants have the butter baked in, but we recommend slathering your roasted fingerlings. Combine with Magic Molly and AmaRosa for a rainbow potato salad. Moderate scab resistance. ②

7600 B: 2# for $13.25 C: 10# for $43.25
D: 25# for $86.50 E: 45# for $109.00

Banana - Yellow skin, yellow flesh. Sometimes called **Russian Banana**. Nutty and waxy, Bananas are renowned for their heavy yields of banana-shaped fingers. Makes terrible smoothies, but you will spend nights dreaming of long strips of roasted Bananas, simmering in the crackles and pops of the lightest olive oil, with a slight crunch of sea salt and a dash of balsamic vinegar. Resistant to scab, but susceptible to late blight, leafroll and verticillium wilt.

Banana Organic ②

7110 B: 2# for $17.25
C: 10# for $56.75
D: 25# for $112.00
E: 45# for $165.25

Banana Conventional ②

7610 B: 2# for $13.25
C: 10# for $43.25
D: 25# for $86.50
E: 45# for $109.00

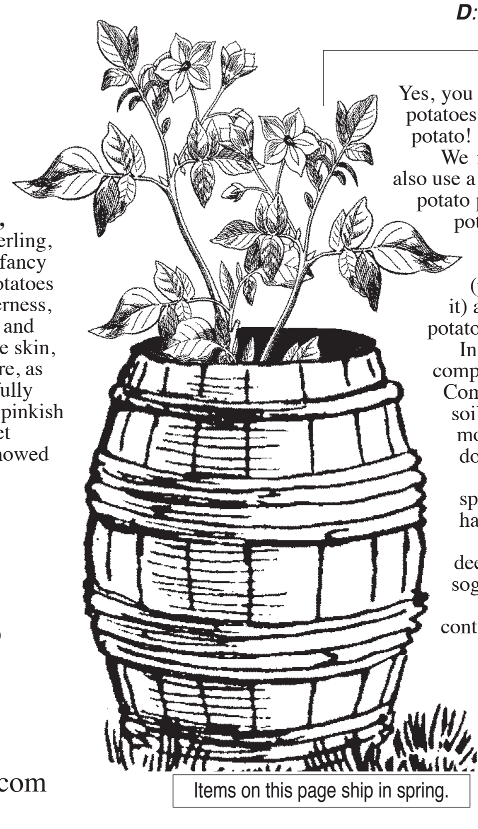
French Fingerling - Dark rose-red skin, yellow flesh with pink lines. This fine fingerling, a spud of lore and song, is more than just a fancy fad. You'll want to pick these sweet little potatoes on the early side to fully revel in their tenderness, before they embark on their more awkward and bulky phase and develop growth cracks. The skin, though it scuffs easily, is worth the extra care, as it stays smooth to the touch, tender and awfully pretty. The yellow flesh features a stunning pinkish webbing. Tall spreading plants with wide-set tubers. Hill and mulch well! In our trials, showed impressive resistance to potato beetles, leaf hopper and scab.

French Fingerling Organic ②

7120 B: 2# for $17.25
C: 10# for $56.75
D: 25# for $112.00
E: 45# for $165.25

French Fingerling Conventional ②

7620 B: 2# for $13.25
C: 10# for $43.25
D: 25# for $86.50
E: 45# for $109.00



La Ratte - Yellow-netted skin, yellow flesh. "The Rat" describes the plump shape well but belies the appetizing flavor! This little pet is versatile in the kitchen and the most consistent fingerling in shape and size. You'll welcome these rodents into your packing shed for their ease of sale and perfect texture. Kept in cold storage, La Ratte stores beautifully and maintains its fine quality to sustain you through the winter. Scab resistant.

La Ratte Organic ②

7130 B: 2# for $17.25 C: 10# for $56.75
D: 25# for $112.00 E: 45# for $165.25

La Ratte Conventional ②

7622 B: 2# for $13.25 C: 10# for $43.25
D: 25# for $86.50 E: 45# for $109.00

Magic Molly - Dark purple skin, deep purple flesh. This rockstar potato just won't stop. Pick them early for sweet little fingerlings or hold out for larger potatoes later in the season. Rich purple from skin to center. Distinctive earthy flavor and pleasantly firm waxy texture. A fantastic addition to a dish of roasted mixed vegetables. Ian Jerolmack of Stonecipher Farm in Bowdoinham, ME, has Molly fans among his restaurant accounts; they incited a small riot after his Mollies had been bought up. We love Magic Molly so much it inspired the creation of our 2017 cover art superhero. Vigorous plants, high yields and few diseases. Slight inclination to scab. *No subs for this variety; if we run out, you will receive a refund.*

Magic Molly Organic ②

7140 B: 2# for $17.25 C: 10# for $56.75
D: 25# for $112.00 E: 45# for $165.25

Magic Molly Conventional ②

7625 B: 2# for $13.25 C: 10# for $43.25
D: 25# for $86.50 E: 45# for $109.00

Pinto - Red and yellow skin, yellow flesh. The cutest potato we offer! With boldly polka-dotted bicolor skins, they practically sell themselves at market. High yields with up to 28 tubers per plant. You'll think the Easter Bunny left you a sweet pile of yellow-spotted pink eggs when you harvest! Buttery and decadent with a creamy texture. In our trials Pinto shows resistance to blight, drought and scab; the leafhopper didn't bother it a bit. Bred by UMaine. *No subs for this variety; if we run out, you will receive a refund.*

Pinto Organic ①② **NEW!**

7145 B: 2# for $17.25 C: 10# for $56.75
D: 25# for $112.00 E: 45# for $165.25

Pinto Conventional ②

7628 B: 2# for $13.25 C: 10# for $43.25
D: 25# for $86.50 E: 45# for $109.00

Red Thumb - Red skin, pale red flesh. The earliest potato in our trialing field, a rare trait among fingerlings. Also unusual for its cream-colored flesh streaked with a light red pigment. Dig early for that classic petite fingerling, or wait for skins to set to secure some lunkers. If you're a backyard breeder or an aspiring one, you'll love the potential offered by this beautifully flowering and seed-producing variety. Its earliness likely contributes to its ability to stand up to early blight. Moderate scab resistance. ②

7630 B: 2# for $13.25 C: 10# for $43.25
D: 25# for $86.50 E: 45# for $109.00

Growing Potatoes in Containers

Yes, you can grow potatoes in containers! Yields will not be as high as potatoes planted in the ground, but if a bucket is all you have, plant a potato!

We recommend **8807** 20-gallon fabric pots (p. 148), but you can also use a 5-gallon bucket with drainage holes drilled in the bottom. Each potato plant wants about 5 gallons to grow in, so you can plant 4 seed potatoes per 20-gallon pot (spaced 6" from pot edges), or one seed potato per bucket.

Before planting, chit (green sprout) your seed potatoes (p. 123). When sprouts appear, leave the seed whole (don't cut it) and rub off all but the largest 2 or 3 sprouts. If you want smaller potatoes, leave all the sprouts.

In your containers, set seed potatoes into 3" of moist balanced compost, like **8356** Coast of Maine Quoddy Blend or **8369** Vermont Compost Plus (p. 139-140). You can mix the compost with garden soil to save money, but compost is best because it stays loose and moist. You can also add a small handful of **8315** TurboTuber, but don't overdo it.

Cover potatoes with 12–16" of compost or soil, leaving 3–4"of space at the top of the container. Once sprouts emerge, mulch with hay or straw to keep any high-setting tubers from turning green.

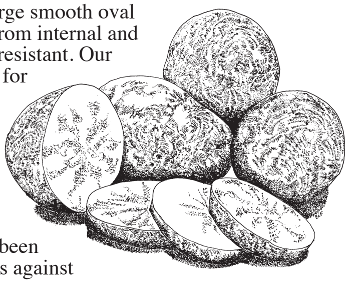
Set containers in full sun, but avoid really hot locations. Water deeply a couple times a week, but make sure the soil doesn't stay soggy. Harvest 2 weeks after plants turn yellow and wither.

We're in the early stages of trialing varieties for growing in containers. So far we've had success with these varieties:

7730 Upstate Abundance
7815 Purple Majesty
All our **fingerlings**!
7990 Vardaman sweet potato

Let us know which varieties work best for you!

EARLY POTATOES 65-80 days



Algonquin - Buff skin, white flesh. Large smooth oval tubers size up early and are largely free from internal and external defects. High yielding and scab resistant. Our grower in New York says, “I’ve grown it for years, and have never been disappointed with it, which is a rare quality for a potato. I don’t think you can go wrong with it.” Released by Cornell in 2017. The Algonquin people have a long venerable history throughout eastern Canada and around the Great Lakes and New England. Modern Algonquins have been politically active to defend their resources against commercial wild rice harvesting ventures, industrial-scale deforestation and mining companies. **PVP. Indigenous Royalties.** ②

7640 **B**: 2# for $8.25 **C**: 10# for $20.00 **E**: 45# for $46.75

Chieftain - Pinkish-red skin, white flesh. Rounded oblong tubers with slightly netted skin that’s as red as a Fraser Chieftain’s kilt. Shallow eyes for easy peeling. Matures later and is more productive than most earlies. A Maine red-potato staple for our Aroostook growers, its floury fluffiness is complemented by heaping spoonfuls of butter, garlic and a generous pour of raw cream. Medium spreading plant with lilac flowers. Resistant to scab, net necrosis, stem-end browning and late blight.

Chieftain Organic ②

7180 **B**: 2# for $11.50 **C**: 10# for $33.00 **E**: 45# for $76.50

Chieftain Conventional ②

7650 **B**: 2# for $8.25 **C**: 10# for $20.00 **E**: 45# for $42.50

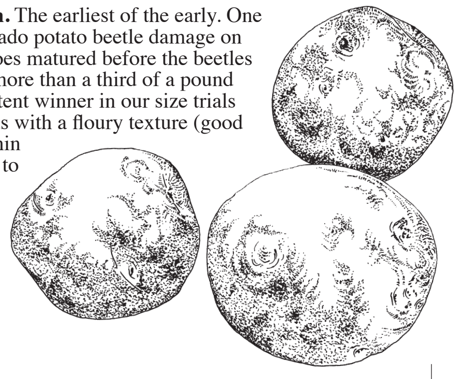
Dark Red Norland - Dark red skin, white flesh. Great for new potatoes! For the best potato salad in the world, combine freshly dug young Norlands, homemade mayonnaise, and slivered garlic and fresh sage sizzled in butter (plus coarse salt and cracked pepper). Makes good home-fries, too. Easy-to-grow and high-yielding. Fair storage. Medium-to-large plants with purple flowers. Resistant to growth cracks, early blight, hollow heart, scab and rhizoctonia. Dig before late blight is a concern.

Dark Red Norland Organic ②

7190 **B**: 2# for $11.50 **C**: 10# for $33.00 **E**: 45# for $76.50

Dark Red Norland Conventional ②

7670 **B**: 2# for $8.25 **C**: 10# for $20.00 **E**: 45# for $42.50



Envol - Buff skin, white flesh. The earliest of the early. One farm reported having no Colorado potato beetle damage on their Envols because the potatoes matured before the beetles even arrived! Tubers average more than a third of a pound each, making Envol the consistent winner in our size trials for early varieties. Round spuds with a floury texture (good for mashing and baking) and thin skins that are smooth and easy to peel or unobtrusive if left on. Stores quite well for such an early potato. Bred in Quebec in the ’80s. Some heat tolerance. Resists hollow heart. Susceptible to scab. **PVP.** ②

7680 **B**: 2# for $8.25
C: 10# for $23.50
E: 45# for $46.75

Natascha - Yellow skin, yellow flesh. A higher-yielding alternative to Anuschka and Augusta. You’ll be delighted by the multitude of deep yellow, perfectly smooth and amazingly blemish-free potatoes that tumble from the hills at harvest. My favorite early yellow. Excellent flavor with smooth and creamy texture. I like them boiled and buttered, but they are also really nice and creamy whipped with an immersion blender. Resistant to scab, bruising, rhizoctonia, black leg, PVY and tuber rots. **PVP.** ②

7695 **B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75

Pamper your Potatoes

Turbo-Tuber (Approx. 7-2-9, plus 2% Ca and 3.5% S) High-test organic fertilizer, formulated to meet the nutrient requirements of potatoes. See page 137 for details. *No NH sale*. MOFGA

8315 **A**: 5# for $13.50
B: 45# for $89.50
C: pallet 40 bags (1800#) for $2340.00

Potato Bags Heavy paper bags for storing or marketing your own spuds. To avoid moisture build-up, 5# and 20# sizes have a mesh vent in front and 50# size has punched air holes.

9325 **B**: 5# bags, bundle of 5 (0#) for $4.00
9326 **B**: 20# bags, bundle of 5 (2#) for $4.25
9327 **B**: 50# bags, bundle of 3 (3#) for $4.75

Red Gold - Pink skin with red eyes, yellow flesh. Red Gold will usher in the summer and knock out any spring doldrums. The bright gold flesh shines like the July sun under which you’ll be harvesting. One of the most stunning potatoes in our lineup. Plant close together for a ton of tasty little ovals or farther apart for a heavier yield. With creamy sweetness roasted or fried, Red Gold has a reputation for the hands-down best flavor of all the early varieties. Not a great storer. Will stand up against too-wet soil and even some blight. ②

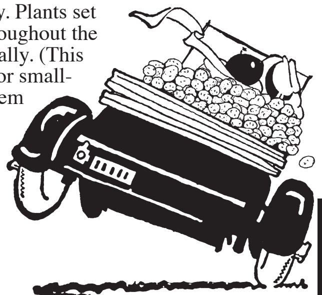
7700 **B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75

Sangre - Deep red skin, white flesh. It’s rare, but here’s an early spud that’s good for storage. Deep red skin protects the creamy soft white flesh. Boiling and baking are the best culinary uses for this potato, released from Colorado State University in 1982. Shows resistance to early blight, leaf roll, potato virus Y and hollow heart. Susceptible to verticillium wilt and fusarium dry rot. Slowly emerging upright medium-sized vines with lavender flowers. ②

7720 **B**: 2# for $8.25 **C**: 10# for $25.00 **E**: 45# for $51.00

Satina - Organic - Yellow skin, yellow flesh. They say farming leaves you wicked haggard, so polish up your style for city market with these stunningly chic Satinas. The soft buttery flesh and yellow skin are smooth as silk. Ian of Stonecipher Farm says, “This ain’t no Mickey D’s fry trash. Satinas are the sparkplug in our skillet.” When dug, each plant has one or two thick stalks with a string of large round tubers dangling beneath. Satinas store well and are resistant to common scab. Free the seed! ②

7225 **B**: 2# for $11.50 **C**: 10# for $33.00 **E**: 45# for $76.50



Upstate Abundance - Buff skin, white flesh. Abundant piles of petite potatoes, creamy and fancy. Plants set oodles of tubers the size of golf-balls throughout the growing season, filling out the hill vertically. (This trait might make them good candidates for small-container gardening.) Whether you let them sprawl or grow them in a barrel, make sure to mulch well, as tubers set all the way up to the soil surface. Harvest them anytime during the season—the ones you leave till fall will keep all winter in the root cellar. Bred by Walter de Jong at Cornell. Resistance to golden nematode Ro1 and Ro2, PVY, hollow heart, and a handful of other diseases and blemishes. Late-blight resistant. **PVP.** *No subs for this variety; if we run out, you will receive a refund*. ②

7730 **B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75

Yukon Gem - Yellow skin with pink eyes, yellow flesh. A modern take on old familiar Yukon Gold, with higher yields and better PVY and scab resistances. Stocked with the latest in plant-vigor innovation, the Gem has surpassed its predecessor in popularity. In 2006, plant pathologists from the Agricultural Research Service in Aberdeen, ID, deemed Yukon Gem ready for the fresh market because of its resistance to costly infections of late blight and dry rot. Matures about 10 days later than Yukon Gold, but worth the wait. *Yukon* is from a contraction of the words in the Gwich’in phrase *chųų gąįį han*, which means ‘white water river’ and refers to the pale color of glacial runoff in the Yukon River. Late-blight resistant. **PVP. Indigenous Royalties.**

Yukon Gem Organic ①②

7228 **B**: 2# for $11.50 **C**: 10# for $37.25 **E**: 45# for $121.25

Yukon Gem Conventional ②

7735 **B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75

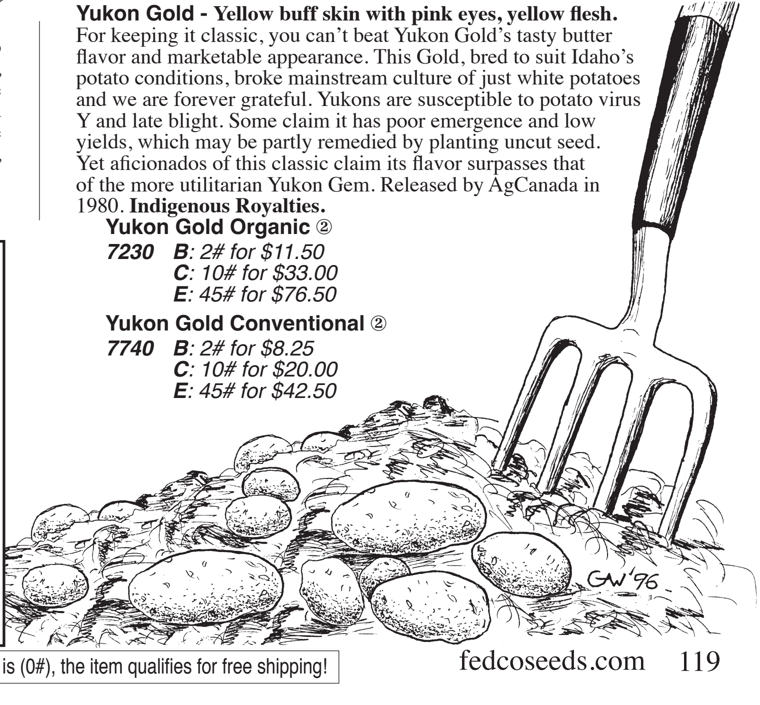
Yukon Gold - Yellow buff skin with pink eyes, yellow flesh. For keeping it classic, you can’t beat Yukon Gold’s tasty butter flavor and marketable appearance. This Gold, bred to suit Idaho’s potato conditions, broke mainstream culture of just white potatoes and we are forever grateful. Yukons are susceptible to potato virus Y and late blight. Some claim it has poor emergence and low yields, which may be partly remedied by planting uncut seed. Yet aficionados of this classic claim its flavor surpasses that of the more utilitarian Yukon Gem. Released by AgCanada in 1980. **Indigenous Royalties.**

Yukon Gold Organic ②

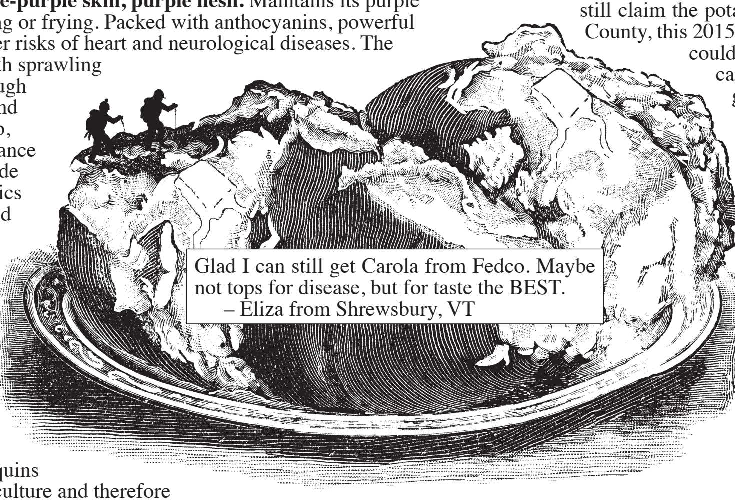
7230 **B**: 2# for $11.50
C: 10# for $33.00
E: 45# for $76.50

Yukon Gold Conventional ②

7740 **B**: 2# for $8.25
C: 10# for $20.00
E: 45# for $42.50



MIDSEASON POTATOES 80-90 days



Glad I can still get Carola from Fedco. Maybe not tops for disease, but for taste the BEST.
– Eliza from Shrewsbury, VT

Adirondack Blue - Blue-purple skin, purple flesh. Maintains its purple color after boiling, roasting or frying. Packed with anthocyanins, powerful antioxidants that can lower risks of heart and neurological diseases. The plants are ostentatious with sprawling blue-tinted foliage. Although tuber dormancy is short and Blue is susceptible to scab, scurf and CPB, its appearance is awfully festive. Walter de Jong and his potato-genetics buddies at Cornell released Addie Blue in 2003. The word *Adirondack* is thought to come from the Mohawk word *ha-de-ron-dah* meaning 'eaters of trees.' French missionary Joseph-François Lafitau recorded that the word was used by the Iroquois as a derogatory term for groups of Algonquins who did not practice agriculture and therefore sometimes ate tree bark to survive harsh winters. *Note:* storage life is short, so seed may be ugly when it arrives. Plant them anyway—odds are they'll be just fine. **Indigenous Royalties.**

Adirondack Blue Organic ②

7240 ***B**: 2# for $11.50* ***C**: 10# for $37.25* ***E**: 45# for $121.25*

Adirondack Blue Conventional ②

7745 ***B**: 2# for $8.25* ***C**: 10# for $23.50* ***E**: 45# for $46.75*

Adirondack Red - Red skin, pinkish flesh. These rubies will have your cast iron glistening. Intense bright skin, moist firm flesh that's rich in antioxidants, refuting those who knock potatoes' nutritive qualities. Positive feedback from Stonecipher Farm was flattering but, alas, unprintable. Released by Cornell in 2008 to restore vigor to the red fresh potato scene and deemed an "heirloom-to-be" by *Gourmet*. Resists skinning, hollow heart, internal defects and growth cracks. *No subs for this variety; if we run out, you will receive a refund.* **Indigenous Royalties.**

Adirondack Red Organic ②

7245 ***B**: 2# for $11.50* ***C**: 10# for $33.00* ***E**: 45# for $97.75*

Adirondack Red Conventional ②

7750 ***B**: 2# for $8.25* ***C**: 10# for $25.00* ***E**: 45# for $51.00*

All Blue - Organic - Blue-purple skin, purple flesh. Once a novelty, now a sought-after specialty potato that doesn't sacrifice flavor for beauty. Texture is dry and floury. For a brilliant salad, steam up purple potatoes and sliced carrots and toss them with garlic vinaigrette and chopped herbs. Vigorous plants with blue blossoms have solid yields. Moderate resistance to late blight, hollow heart and scab. ② **BACK!**

7252 ***B**: 2# for $11.50* ***C**: 10# for $33.00* ***E**: 45# for $97.75*

Baltic Rose - Red skin, yellow flesh. Add this tasty little tuber to your midsummer cornucopia. A relatively new variety from Eastern Europe, it has been getting rave reviews from growers who delight in its gorgeous appearance, excellent flavor and smooth texture, not to mention its hearty yields. Slightly textured skin has small shallow eyes that make for easy peeling, though we're not sure why anyone would do such a thing. You'll find it pleasing roasted, fried, stewed or steamed up for a nice potato salad. Better still, these roses claim resistance to scab, PVY, rhizoctonia, black leg and golden nematodes. Late-blight resistant. **PVP**. ②

7758 ***B**: 2# for $8.25* ***C**: 10# for $23.50* ***E**: 45# for $46.75*

Blackberry - Organic - Deep dark purple skin and flesh. Nearly black with super-high concentrations of cancer-fighting anthocyanins, these are so inky the flesh will dye your fingers like actual blackberries. With irrigation we got above-average yields of uniformly round spuds with thin delicate skins and smooth creamy dark purple flesh. In our trial it stood up tall and healthy against potato beetles, wire worm and early blight. Gentle handling is recommended as injured tubers are susceptible to fusarium dry rot in storage. Otherwise they store just fine. **PVP.** ②

7253 ***B**: 2# for $11.50* ***C**: 10# for $37.25* ***E**: 45# for $121.25*

Blue Gold - Blue-purple skin, yellow flesh. Also known as **Peter Wilcox** and, although named for Peter C. Wilcox, a professor in the Spiritual and Pastoral Care Program at Loyola College, these yields are ungodly. Round sapphire beads with stunning gold flesh proclaim large amounts of tubers with a sinfully flashy appearance. Tubers set high, so hill well. Space at 10–12". Lavender flowers. Scab and nematode resistant, susceptible to a daunting degree of scurfs, wilts and blights.

Blue Gold Organic ①②

7255 ***B**: 2# for $11.50* ***C**: 10# for $37.25* ***E**: 45# for $121.25*

Blue Gold Conventional ②

7760 ***B**: 2# for $8.25* ***C**: 10# for $25.00* ***E**: 45# for $51.00*

Caribou Russet - Russeted skin, white flesh. It's been more than 100 years since herds of woodland caribou graced the state of Maine. At least we can still claim the potato. Named after the city of Caribou in Aroostook County, this 2015 UMaine release was bred for cool climates, which could be especially handy if we decide to follow those caribou herds up to Canada. Vigorous plants produce good yields of large oblong russet potatoes. Using organic practices, we've grown really big Caribou. The word *caribou* comes through French from the Mi'kmaq *qalipu* or 'snow shoveler'—referring to the animal's habit of pawing through the snow for food. You will be able to paw through your root cellar for many delicious feasts this winter if you grow this productive variety. Great mashed, fried or baked. Has exceptionally low instance of hollow heart, a common problem of most russets. Moderately resistant to scab and verticillium wilt. **PVP. Indigenous Royalties.**

Caribou Organic ①②

7259 ***B**: 2# for $11.50*
***C**: 10# for $37.25*
***E**: 45# for $121.25*

Caribou Conventional ②

7765 ***B**: 2# for $8.25*
***C**: 10# for $20.00*
***E**: 45# for $42.50*

Carola - Yellow skin, yellow flesh. Fedco employees can agree on Carola as the best-tasting potato more than we can agree on anything else. These potatoes are rarely uniform but have that charming old-fashioned potato look. Firm and waxy, with flavor loved by all. Great prepared on the grill, wrapped in foil with sliced onion and sea salt. Watch out for dreary weather that could wallop your Carolas with fungal blights. Decent scab resistance partially compensates for this weakness. Medium spreading plants with white flowers. ②

7770 ***B**: 2# for $8.25* ***C**: 10# for $25.00* ***E**: 45# for $51.00*

Eva - Buff skin, white flesh. This apple of the earth entices with its smooth glossy skin and uniform tuber size and shape, and you don't even have to fear eternal banishment when you take a bite. Starchy texture is ideal for baking, mashing, fries and homemade chips. Tolerates a wide variety of soil conditions. The tubers have a very long dormant period and shallow eyes that tend to cluster at one end: plan to chit whole tubers before planting (instructions on page 123). Good resistance to early blight and scab, and excellent resistance to viruses and golden nematodes. No hollow heart or internal necrosis. Susceptible to late blight. ②

7775 ***B**: 2# for $8.25* ***C**: 10# for $20.00* ***E**: 45# for $42.50*

Gold Rush Russet - Organic - Russeted skin, white flesh. You'll feel rich when you start filling your crates with these hulking tubers. A perfect baking potato, and it fries up like a champ, too. The discovery of a gold deposit in Coloma, CA, brought 300,000 people to California from 1848 to 1855. We don't expect quite that many people to rush for this potato, but it deserves our enthusiasm for its good flavor and reliably high yields. Russets can be fussy in our humid climate, but Gold Rush performs even in wet years or poor soils. Plant at wide spacing to allow tubers to grow to their full potential. 1992 North Dakota Ag Exp Stn release. Uniform, smooth and resistant to hollow heart. Good resistance to scab. Susceptible to blights and fusarium. ①

7265 ***B**: 2# for $11.50* ***C**: 10# for $37.25* ***E**: 45# for $121.25*

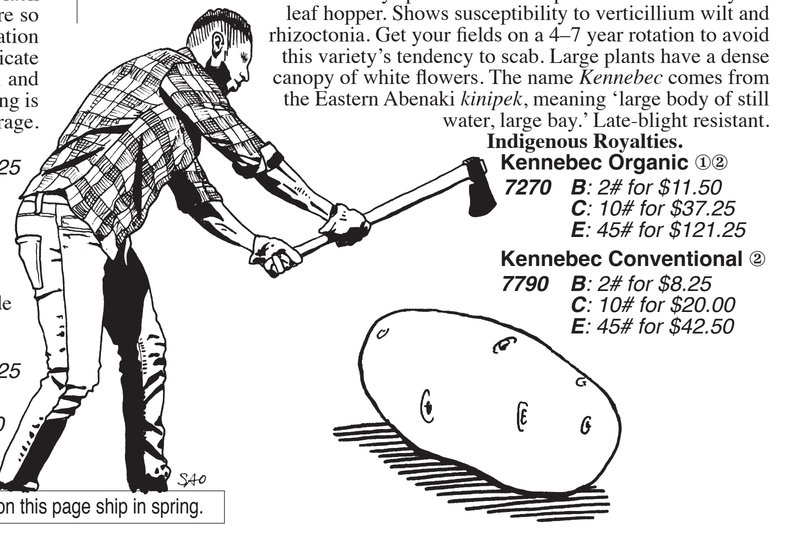
Kennebec - Buff skin, white flesh. The quintessential Maine potato. Very adaptable to various soil and growing conditions, rugged, but sweet on the inside, just like a true Mainer. A surprise winner for best French fry among several varieties that customer Tim Cunningham cooked up in a vat of olive oil at our 2017 spring Tree Sale (insert nostalgic sigh here). Large uniform tubers store extremely well and resist late blight. Kennebecs are high yielding, resistant to dry spells and the last potato taken down by the leaf hopper. Shows susceptibility to verticillium wilt and rhizoctonia. Get your fields on a 4–7 year rotation to avoid this variety's tendency to scab. Large plants have a dense canopy of white flowers. The name *Kennebec* comes from the Eastern Abenaki *kinipek*, meaning 'large body of still water, large bay.' Late-blight resistant. **Indigenous Royalties.**

Kennebec Organic ①②

7270 ***B**: 2# for $11.50*
***C**: 10# for $37.25*
***E**: 45# for $121.25*

Kennebec Conventional ②

7790 ***B**: 2# for $8.25*
***C**: 10# for $20.00*
***E**: 45# for $42.50*



Items on this page ship in spring.

Keuka Gold - Buff skin, light yellow flesh. After its release from Cornell in 2004, these large oblong flat tasty tubers gained immediate popularity, especially with growers in the variable climates of upstate New York and New England. In 2009, the *New York Times* featured Keuka, implying its dethroning of the modern potato pop star Yukon Gold, and mentioning its rich flavor mashed or roasted. Catalog editor Elisabeth is finally ready to admit to Fedco co-workers that she's abandoned Carola to give more garden space to Keuka. Shows resistance to scab and golden nematode. Susceptible to rhizoctonia. **Indigenous Royalties.** ②

Keuka Gold Organic ② **NEW!**

***7280 B**: 2# for $11.50 **C**: 10# for $33.00 **E**: 45# for $76.50*

Keuka Gold Conventional ②

***7800 B**: 2# for $8.25 **C**: 10# for $20.00 **E**: 45# for $42.50*

Masquerade - Mottled purple and gold skin, yellow flesh. This whimsical tuber is sure to turn heads. Roast them in olive oil and sprinkle with salt and you've got a stunning offering for both the eyes and the taste buds. Longtime Fedco customer Katie Springman said, "They're wonderful (don't need anything, not even salt) AND beautiful: the outside is a blast, the inside is brilliant yellow, and the blooms are deep purple. My neighbor saw them and asked what they were so he could add them to his flower garden next year!" Keeps well in the root cellar, but don't be surprised to see sprouts forming soon after harvest—its Peruvian parentage means it has almost no dormancy period. Literature suggests resistance to hollow heart and bruising—our trials suggest more than that. Amid the crush of early blight and Colorado potato beetles in our field, these beautiful plants remained vigorous among bedraggled neighbors. Holds its own in organic production. **PVP.** ②

TATERS GONNA TATE
SAO

***7805 B**: 2# for $8.25 **C**: 10# for $25.00 **E**: 45# for $51.00*

Nicola - Yellow skin, deep yellow flesh. Developed in Germany, these medium-large oblong potatoes are on the waxy side and hold their shape, making a preeminent potato salad. Fabulous new potatoes. Attractive firm skin is smooth and velvety. Most known for being on the early side of midseason and a classic "gold nugget" potato. Said to have the lowest glycemic index of any potato. A tried-and-true late-blight survivor; shows resistance to rhizoctonia, blackleg, scab and drought. Late-blight resistant. ②

***7810 B**: 2# for $8.25 **C**: 10# for $25.00 **E**: 45# for $51.00*

Purple Majesty - Purple skin, purple flesh. All rise for this stately spud, this magnificent murphy, this towering tuber, this pompous purple potato! To manufacture an ounce of the original royal purple, Phoenician dye-makers had to crack the shells of a quarter million tiny mollusks, extract the drops of mucous and expose it to sunlight for a precise amount of time—thus the substance was worth its weight in gold. This potato's deep purple hues are easier to obtain, but its unusual appearance may still command a premium price at market. Starchy enough for baking or mashing but firm enough to hold its shape in potato salads. Uniform small- to medium-sized tubers. Limited life span in the root cellar: eat 'em up. Moderately resistant to leafroll and potato virus, susceptible to most other diseases including scab. **PVP.** ②

***7815 B**: 2# for $8.25*
***C**: 10# for $25.00*
***E**: 45# for $51.00*

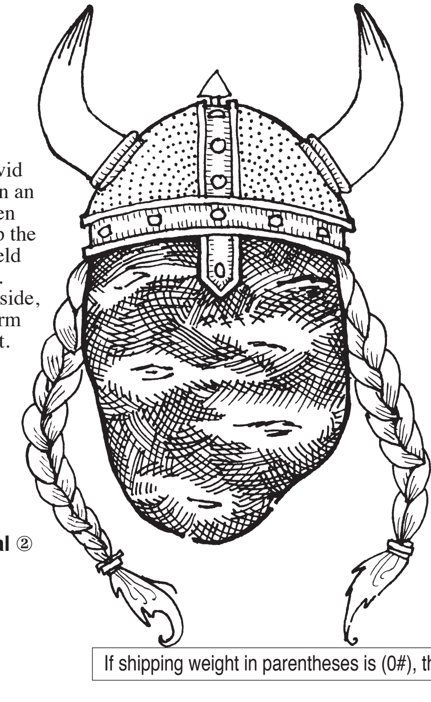
Purple Viking - Pink-splashed purple skin, white flesh. A crowd pleaser at market and fresh out of the oven, the Purple Viking's got show-stopping purple skin with vivid pink splashes that are sure to reel in an audience. Its creamy rich flesh when baked, roasted or mashed will keep the everyone happy. For size, style, yield and taste, it's an all-around winner. Vikings grow on the large knobby side, so if you want smaller, more uniform potatoes plant closer than 10" apart. Shows some resistance to leaf hoppers. *No subs for this variety; if we run out, you will receive a refund.*

Purple Viking Organic ②

***7300 B**: 2# for $11.50*
***C**: 10# for $37.25*
***E**: 45# for $121.25*

Purple Viking Conventional ②

***7820 B**: 2# for $8.25*
***C**: 10# for $23.50*
***E**: 45# for $46.75*



Red Maria - Red skin, white flesh. Brace yourself for staggering yields! Red Maria will fill the root cellar, or satisfy your market's bulk red-potato niche. Skin hue has less visual exuberance than her sister Strawberry Paw's, but fulfills the needs of 98% of red-potato customers. Super-sweet moist flesh. Excellent dormancy retention in winter storage. Scab resistant. Reddish-purple flowers, semi-upright dark green vines. Also known as **NY-129**.

Red Maria Organic ①②

***7305 B**: 2# for $11.50 **C**: 10# for $37.25 **E**: 45# for $121.25*

Red Maria Conventional ②

***7830 B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75*

Soraya - Yellow skin, yellow flesh. This golden heartthrob from Germany is hoping to make friends with growers on this continent. Very healthy and low maintenance, Soraya won't balk at low fertility or lack of inputs in your soil, though the plants do appreciate consistent moisture levels. Heavy yields for luscious potato salads in the summer, and very good storability for hearty soups all winter long. Tolerates heat and drought with low incidence of secondary growth, growth cracks and hollow heart. Resistant to fusarium dry rot, scab, silver scurf, black leg, PVY, PVX and PLRV, golden nematodes Ro1 and Ro4. Late-blight resistant. **PVP.**

Soraya Organic ②

***7310 B**: 2# for $11.50 **C**: 10# for $37.25 **E**: 45# for $121.25*

Soraya Conventional ②

***7843 B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75*

> I loved growing Soraya last year for the first time! Good yields of beautiful blemish free potatoes with no irrigation in a drought year here in southern VT. They're a keeper!
> – Margaret from Brattleboro, VT

Strawberry Paw - Bright red skin, white flesh. Developed specifically for blight and scab resistance, the merit of these bright fuchsia gems goes beyond reliably healthy crops. Their flashy display is a fantastic addition to your potato collection. With generally good yields and medium-to-large size, their flesh is firm, sweet and moist. Fedco staffer Alice Coyle's favorite red potato. Scab resistant. Becoming known for their vigorous nature and good storage. Also known as **NY-136**.

Strawberry Paw Organic ①②

***7327 B**: 2# for $11.50 **C**: 10# for $37.25 **E**: 45# for $121.25*

Strawberry Paw Conventional ②

***7845 B**: 2# for $8.25 **C**: 10# for $23.50 **E**: 45# for $46.75*

Vivaldi - Organic - Pale yellow skin, pale yellow flesh. This medium-early oval potato got a lot of press in the UK as a "slimming potato," as some lab tests have shown it contains roughly three-quarters the calories and carbohydrates of the average potato. Fedco staff commented on its mildly sweet flavor and creamy velvety texture in a warehouse kitchen oven-fry bake-off: we found it worthy of honoring with a violin concerto, and certainly worthy of listing in our catalog. Holds shape well during cooking. High yields of large tubers, but little disease resistance. **PVP** expires in 2024. ①

***7330 B**: 2# for $11.50 **C**: 10# for $37.25 **E**: 45# for $121.25*

Saving the Green Mountain Potato

Late blight, responsible for famines in the northern hemisphere, arrived in the U.S. in 1840, and a considerable effort to develop resistant potato varieties soon followed. One of the earliest achievements was the Green Mountain potato, developed by Orson Alexander of the University of Vermont in 1878 and released seven years later. While not considered late-blight resistant by today's standards, the variety offered heavy yields, great flavor and versatile culinary uses. It became the dominant potato variety grown in New England.

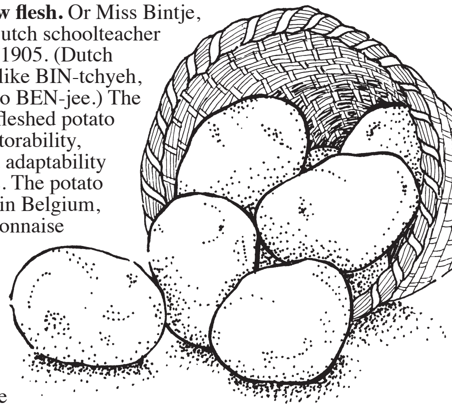
By the 1950s, however, mechanized industry favored potatoes with a more consistent shape and size, and new russet potatoes began to replace the old Green Mountains. Still, it held on as a staple for homesteaders and gardeners for the rest of the century.

In the early 2000s, the Slow Food Ark of Taste highlighted the variety as being on the decline, and in 2020 the very last of the available certified seed was offered in our catalog. (What is *certified* potato seed? See page 115.)

Responding to the outpouring of customer requests for Green Mountain, we set our sights on saving the vanishing breed. We teamed up with the Coreys, a family in Maine that grows foundation seed potatoes for the majority of growers on the eastern seaboard and beyond, and Sara Corey was able to find a clean source of Green Mountain tissue maintained by the Maine Potato Board. In 2022 the first new plantlets were grown in beds of sterile soil to produce a batch of minitubers, which in 2023 were grown out into seed potatoes. This new generation of certified Green Mountain seed is available exclusively to Fedco customers, 146 years after its first introduction.

See **7890** Green Mountain description, next page.

LATE POTATOES more than 90 days



Bintje - Yellow skin, yellow flesh. Or Miss Bintje, named after a pupil of the Dutch schoolteacher who released this variety in 1905. (Dutch pronunciation is something like BIN-tchyeh, but it's been Americanized to BEN-jee.) The most widely grown yellow-fleshed potato in the world because of its storability, proficient growth habits and adaptability to a wide range of soil types. The potato of choice for *pommes frites* in Belgium, where they dip them in mayonnaise instead of in ketchup. Large clusters of smooth golden-fleshed tubers will appear beneath these quickly germinating, vigorous plants. Exquisite flavor; the Dutch know a thing or two about breeding desirable potatoes. Space at 16–18". Susceptible to scab. ②

7860 ***B**: 2# for $8.25* ***C**: 10# for $25.00* ***E**: 45# for $51.00*

Desiree - Red skin, yellow flesh. Satiny rose-red skin and creamy yellow flesh with a distinct flavor. Bred in the Netherlands, these large and long oval tubers will satisfy. High yielding in fertile soil, the plants are rugged and will tolerate drought, also show resistance to late blight, potato virus Y and skin spot. Moderately susceptible to scab. Late-blight resistant. ②

7865 ***B**: 2# for $8.25* ***C**: 10# for $25.00* ***E**: 45# for $51.00*

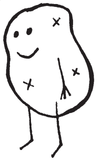
Elba - Buff skin, white flesh. Elba's dreamy yield will strike out your summer's carried-over debts. Delicious Elba keeps solidly all winter long, despite slow spring emergence. Dan Corey, who grows much of our unique conventional potato stock says, "Elba is hard to screw up," even when grown under the stricter standards of organic production. Bulky standard round white storage potatoes can survive in less-than-optimal conditions. First pick for avoiding fungal blights, including scab and even late blight. Late-blight resistant.

Elba Organic ①②

7345 ***B**: 2# for $11.50* ***C**: 10# for $33.00* ***E**: 45# for $97.75*

Elba Conventional ②

7870 ***B**: 2# for $8.25* ***C**: 10# for $23.50* ***E**: 45# for $46.75*



German Butterball - Lightly russeted yellow skin, yellow flesh. These delectable buttery balls are hands-down the best-tasting roasting potato in the winter. With flesh just dry enough for a fry or a hash, the Butterball has high yields, good storage qualities and shows some virus resistance. Susceptible to rhizoctonia. Scab resistant. Large prostrate vines with few white flowers.

German Butterball Organic ①②

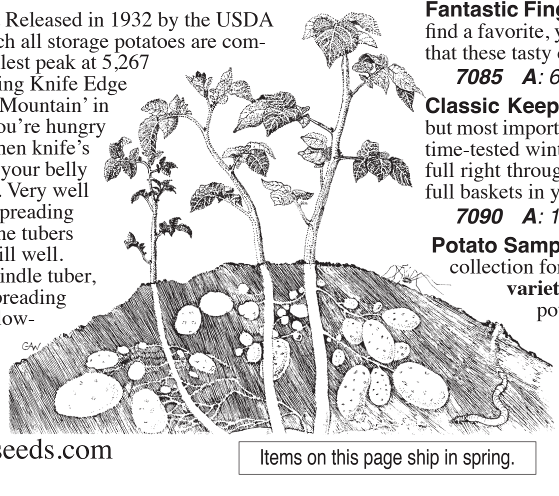
7360 ***B**: 2# for $11.50* ***C**: 10# for $33.00* ***E**: 45# for $97.75*

German Butterball Conventional ②

7880 ***B**: 2# for $8.25* ***C**: 10# for $20.00* ***E**: 45# for $46.75*

Green Mountain - Buff skin, white flesh. This 1885 heirloom from Vermont has been out of circulation since 2021 when we lost access to certified seed stock. The potential loss of this beloved variety was the heartbreak of many New England growers. A true potato lover's potato, baked or boiled, the medium-sized round tubers have unparalleled fluffiness and an earthy flavor that doesn't fade in long storage. We had to get this variety back in circulation! In collaboration with one of our long-time potato growers, we embarked on a Green Mountain restoration, scouring seed banks for genetic material; growing out clonal plantlets from tissue culture; cleaning and testing to ensure 100% health; and finally growing out the mini-tubers that are the foundation of a certified-seed line. This year we're thrilled to offer a limited supply of first-generation seed stock. Resistant to fusarium storage rot, black leg and verticillium wilt. Susceptible to viral diseases and scab. ② **BACK!**

7890 ***B**: 2# for $8.25* ***C**: 10# for $25.00*



Katahdin - Buff skin, white flesh. Released in 1932 by the USDA and Maine, it is the standard to which all storage potatoes are compared. Mount Katahdin (Maine's tallest peak at 5,267 feet) is famous for its vertigo-inducing Knife Edge trail. *Katahdin* means 'the Greatest Mountain' in the Penobscot language. Whether you're hungry from hiking or gardening, set a kitchen knife's edge to Katahdin the potato and fill your belly with its warm comforting goodness. Very well suited to a Maine growing season, spreading plants can produce some lunkers. The tubers tend towards the soil's surface, so hill well. Resistant to mild mosaic, but not spindle tuber, leafroll or scab. Medium-to-large spreading plant with many large light purple flowers. **Indigenous Royalties.** ②

7900 ***B**: 2# for $8.25*
***C**: 10# for $20.00*
***E**: 45# for $42.50*

Lehigh - Yellow skin, light yellow flesh. A late-season yellow that produces high yields of large tubers. Alice harvested one that weighed in at almost 18 ounces, and the second-largest tuber from the same plant weighed 14 ounces! Has produced consistently high yields across diverse growing regions and conditions. Excellent storage potential. Holds its shape well when boiled, making it ideal for soups and stews, but also great fried. Lehigh new potatoes mash up creamy, dense and delectable. Released jointly in 2007 by Cornell, Penn State and UMaine and named after Lehigh County in PA, where the field trials were conducted. *Lehigh* is derived from the Lenape term *Lechauweki* or *Lechauwekink*, meaning 'where there are forks' (e.g. in the Lehigh River). Resistant to blackspot bruise and scab. **Indigenous Royalties.** ②

Lehigh Organic ②

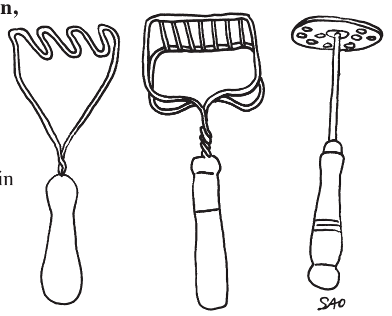
7363 ***B**: 2# for $11.50* ***C**: 10# for $33.00* ***E**: 45# for $76.50*

Lehigh Conventional ②

7905 ***B**: 2# for $8.25* ***C**: 10# for $23.50* ***E**: 45# for $46.75*

Red Pontiac - Red skin, white flesh. Red Pontiacs yield large round potatoes with attractive red skin and succulent white flesh that keeps moist all winter long. These multipurpose potatoes are great for the fresh market as they show few defects and continue to store. The plants tolerate drought but are susceptible to most common potato diseases. Pontiac, or Obwandiyag, was an 18th-c. Odawa war chief known for his role in leading Native Americans in a struggle against British military occupation of the Great Lakes region. **Indigenous Royalties.** ②

7910 ***B**: 2# for $8.25* ***C**: 10# for $20.00* ***E**: 45# for $42.50*



Russet Burbank - Russet skin, white flesh. Known to most as the Idaho Potato, the dry mealy texture makes it a trusty old favorite. A great baking or mashing potato; you'll have the whole winter and spring to experiment in the kitchen. Its reliably high yields mature late in the season, and the plants show resistance to scab, black leg and fusarium. This dependable standard requires heavy feeding and regular moisture for exceptional performance.

Russet Burbank Organic ②

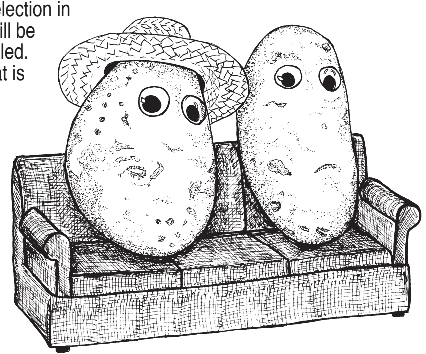
7370 ***B**: 2# for $11.50* ***C**: 10# for $37.25* ***E**: 45# for $121.25*

Russet Burbank Conventional ②

7930 ***B**: 2# for $8.25* ***C**: 10# for $20.00* ***E**: 45# for $42.50*

POTATO COLLECTIONS

Having trouble deciding which variety to choose? We put together collections to help. We'll choose the varieties in the spring when we better know about availability, and we guarantee a diverse selection in every collection. All varieties will be individually packaged and labeled. We might even include one that is not listed in the catalog.



Specialty Organics A well-rounded spud medley from our favorite organic growers covers the seasonal potato spectrum. We'll choose **five varieties** to provide earlies and lates in multiple hues of skin and flesh. Taste the difference that organic production can make. 2# of each variety.

7080 ***A**: 10# for $34.75*

Fantastic Fingerlings **Three diverse varieties** of gourmet potatoes. If you find a favorite, you can grow it next year. Sample the many colors and shapes that these tasty cuties offer. 2# of each variety.

7085 ***A**: 6# for $31.25*

Classic Keepers Yes, we like to eat potatoes during the growing season, but most importantly, we must feast through the winter. This **collection of five** time-tested winter-storage potatoes will keep your stove cranking and bellies full right through spring parsnip digging. Multiple hues of skin and flesh for full baskets in your root cellar. 2# of each variety.

7090 ***A**: 10# for $24.00*

Potato Sampler Encouraged by writer Joan Dye Gussow, we've created a collection for limited space and expansive palate. This **collection of three varieties** includes 2# each of an early, a midseason and a fingerling potato. "It never ceases to amaze me what even a small piece of land lovingly tended can produce," Gussow writes in *This Organic Life*.

7095 ***A**: 6# for $19.25*

GROWING POTATOES

Upon Arrival

Inspect your order as soon as it arrives. Seed potatoes may not look appetizing: that's ok! Sprouting, shriveling, wrinkles and minor blemishes are normal and will not affect the performance of your potato patch. If your seed potatoes are mushy, weeping or very moldy, please contact us at ogs@fedcoseeds.com. If you are not going to plant within two weeks, store seed in a dark cool (around 40°) fairly humid place. Do not remove growing sprouts; these are your new plants.

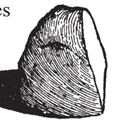
Chitting or Green Sprouting

You may use chitting to encourage early growth, speed development of marketable tubers, and perhaps increase yields. Warm tubers to 65° in the dark for about two weeks, then spread them out with most of the eyes facing up in a warm place (60–70°) with medium light intensity for about two weeks. This stimulates strong stubby sprouts at the bud end that are not easily broken off.

Soil Preparation

Potatoes grow in any well-drained fertile soil. Work in compost or aged manure, or try our house-blended **8315** Turbo-Tuber fertilizer, specially formulated to meet the needs of the potato plant. Incidence of scab increases with use of uncomposted manure, lime or wood ash the year of planting. Turn new ground the year before and plant with a rye/vetch cover crop. Rotate potatoes (and other Solanaceae family members: tomatoes, peppers, eggplants) with other plant families in at least a 3-year or, preferably, a 4-year rotation.

Cutting Seed

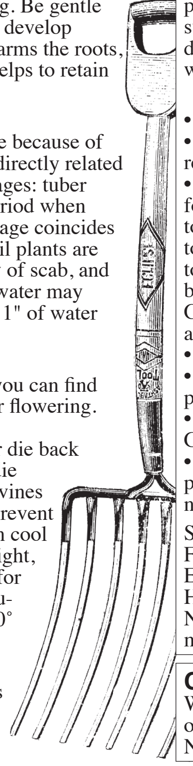


Small tubers planted whole are less sensitive to seed piece decay than cut pieces. You can cut large tubers into pieces of 2 oz or more, about the size of an egg, with at least two eyes. Many varieties have eyes clustered at one end, so be sure to distribute eyes evenly when cutting. Fingerling eyes spiral the length of the tuber so you may cut them into discs or wedges. Consider treating cut seed with **8173** Myco Seed Treat. To reduce the risk of seed piece decay, either cut and plant in one operation, or condition the cut seed pieces at 55–60° and 90% humidity for 3–4 days. Covering pieces with damp burlap bags or towels is a way to maintain humidity levels.

Planting

Plant when the soil is 55–60° and dry enough to work easily, about when dandelions bloom. Planting in cooler soil slows emergence and increases the chance of seed piece decay. Planting in hot dry soil also increases the risk of seed piece decay. Plant in furrows 4–6" deep, in rows that allow for your style of hilling. Space new potatoes and fingerlings at 8" for maximum tuber set. Space later-season varieties at 10–12" for maximum size. One pound of seed will usually plant 5–8 row feet, depending on the variety; 10# will usually plant 50 row feet. 2 oz seed pieces 12" apart with 40" row spacing, requires approximately 1600# (or 1000# fingerlings) per acre.

Cultivation and Hilling



Cultivate shallowly as needed during early growth. Hill when plants reach 6" and again at 12–15". After the second hilling, plants will shade and outcompete weeds. Don't cover plants completely when hilling. Be gentle so as not to damage the roots. Hilling gives the plants room to develop potatoes between the seed piece and the soil surface; it also warms the roots, stimulating growth. Mulching plants after the second hilling helps to retain soil moisture, control weeds and reduce incidence of sunburn.

Irrigation

Potato plants are sensitive to small changes in soil moisture because of their shallow (12–15") root systems. Tuber yield and size are directly related to the amount of water available during two critical growth stages: tuber initiation and tuber bulking. Tuber initiation is a 10–14 day period when tubers form at stolon tips. For most varieties, the end of this stage coincides with early flowering. Tuber bulking follows and continues until plants are mature. Lack of water tends to increase incidence and severity of scab, and will affect yield and overall size of the potatoes. Inconsistent water may cause growth cracks, hollow heart and second growth. Ensure 1" of water weekly from plant emergence until two weeks before harvest.

Harvest and Storage

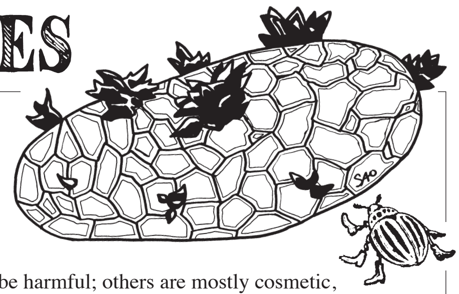
Early harvest or "robbing the plant" can be done anytime you can find potatoes, approximately 60 days after planting or 30 days after flowering. These are new potatoes to be eaten; they will not store well.

Potato plants are mature when the vines start to senesce, or die back and fall over. You may cut, mow, flame-kill or allow them to die naturally. Leave tubers in the ground for 14–21 days after the vines are dead before digging to give the skin time to "set," and to prevent transmission of blight spores from foliage to tubers. Harvest in cool dry weather if possible. After a brief drying, out of direct sunlight, lightly brush off excess dirt but don't wash potatoes intended for storage. Hold at 55–60° for several weeks to allow harvest injuries and bruising to heal; then store only sound tubers at 38–40° with 85–90% relative humidity in complete darkness.

Yields

An average yield is 10# harvested to 1# planted (10:1). Less than 6:1 probably indicates a problem, likely caused by low fertility, lack of water, or excessive disease or insect pressure. Yields as high as 20:1 are exceptional, but can be achieved.

Spud Pests



Like most crops, potatoes are affected by various insects and diseases. The Colorado potato beetle and the potato leafhopper are the most damaging insects. Some diseases such as late blight (see below) can also be harmful; others are mostly cosmetic, like common scab. Leafhopper damage, or hopperburn, can be mistaken for late blight. Consult your local Cooperative Extension office for help with spud problems.

Colorado Potato Beetle Control

Here are several steps that help in the battle against CPB.

Soil health - Healthy soil produces healthy plants, and healthy plants experience less insect and disease pressure.

Crop rotation - Rotating plant families in 3–5 year rotations really helps to control insect and disease problems.

Field scouting - In home gardens, as plants emerge, handpick beetles and larvae; drop them into a container of soapy water. Look under the leaves for orange egg masses and squish them.

Planting later than normal - Takes plant emergence out of sync with beetles' cycle and helps reduce CPB's early egg laying.

Insect netting - Cover with ProtekNet (**8872**) to exclude CPB.

Spraying - If your area is too large for handpicking, you could consider:

- Surround (**8720**), a kaolin clay formulation, forms a barrier on leaves.
- Grandevo (**8750**) a preparation of *Chromobacterium subtsugae* that is effective on larvae.
- Entrust (**8759** on our website), a spinosad insecticide active on several orders of insects. For commercial growers.
- Monterey Garden Spray (**8762**), a spinosad for home gardens.
- Pyganic (**8765**) or Bug Buster-O (**8768**), broad-spectrum pyrethrum insecticides.

Walking the field - Several days after spraying, handpick larvae that the spray missed.

As always, vigilance is the key. Please send us your feedback: what worked or didn't work for you?

If you are trying to identify a pest, or need to send an insect or plant sample to a lab for diagnosis, go to extension.umaine.edu/ipm/ipddl/, a useful website of Maine's plant disease diagnostic laboratory, or contact your local Cooperative Extension Service.

Late Blight

Late blight is a fungal disease that attacks the foliage, fruit and tubers of tomatoes and potatoes. The fungus *Phytophthora infestans* (genus translates as 'plant destroyer') flourishes in cool, wet conditions and can wipe out robust plants. Traveling by air (though it can be seed-borne in potatoes), the spores swiftly proliferate in wet conditions between 60° and 80°. Infected plants develop greyish-black lesions on leaves and stems, often accompanied by fuzzy white fungal growth. Left uncontrolled, the blight can spread to the tubers.

Here are a few **tips for healthy crops:**

- Plant only seed that is certified disease-free (that's us).
- Consider planting late-blight resistant varieties. If a variety shows field resistance to late blight, we mention it in the description.
- Consider beginning the season with preventive measures. Regalia (**8693**), formulated with an extract from giant knotweed, induces systemic resistance to *Phytophthora* and other pathogens. With translaminal action, spraying the tops of leaves extends coverage to the bottoms as well. Spray every 7–14 days to protect new growth. Cease (**8710**) colonizes leaf surfaces with beneficial bacteria that inhibit the growth of predatory fungus. Also consider Monterey Complete Disease Control (**8709**). Cueva copper (**8675** on our website) can be applied as a preventive spray.
- As a last resort, if lesions appear, apply Bonide Copper (**8672**).
- Avoid overhead irrigation just before dusk, as prolonged wet vegetation is a prime target for the blight.
- Hill potatoes well to reduce the transmission of infection from leaf to tuber. Growing potatoes in plastic mulch may help.
- Do not compost any infected plant material. Freezing kills spores; be sure plant tissue is thoroughly frozen. The best method to sterilize your field for next year may be to leave sick plants on the surface to freeze.

Stay up-to-date by watching MOFGA's bulletins (Go to mofga.org, choose Farmer Resources, then Reports/Alerts) or contact your local Cooperative Extension Service for more information. In Maine you can call the Late Blight Hotline (207-760-9ipm) for daily reports on late blight incidence in Maine. Nationally, you can go to usablight.org/map/ to see an interactive up-to-date map of Late Blight occurrences across the country.

Certified-organic Growers

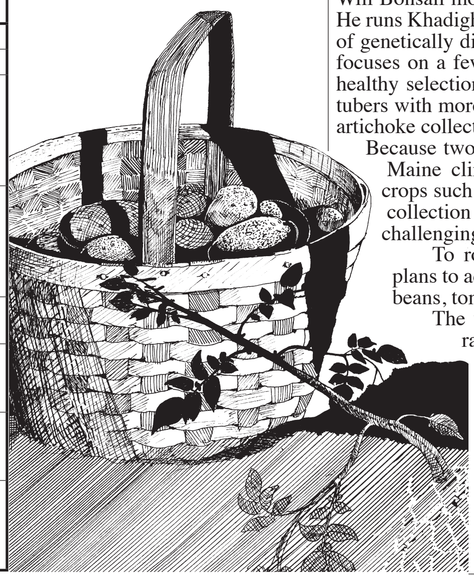
We list several products for certified-organic growers but be aware that no pest- or disease-control product is allowable without filing a plan for its use under the NOP. See pages 115 and 145 for more information.

POTATOES AT A GLANCE

Variety	OG	CS	Maturity	Skin Color	Flesh Color	Shape	Texture	Yield	Storage	Resistance	Certifier
Adirondack Blue	7240	7745	M	blue-purple	purple	Ob	mealy, floury	M	F	G	ME
Adirondack Red	7245	7750	M	red	pinkish-red	R	moist, firm	M	G	G	ME
Algonquin		7640	E-M	buff	white	Ov	moist, firm	H	G	H	NY
All Blue	7252		M	blue-purple	purple	Ob	dry, floury	M	E	G	ME
AmaRosa	7100		M-L	red	red	F	waxy	H	G	H	ME
Austrian Crescent		7600	M	yellow	light yellow	F	waxy	H	G	G	ME
Baltic Rose		7758	M	red	yellow	Ov	moist, firm	H	G	H	ME
Banana	7110	7610	M-L	yellow	yellow	F	waxy	H	G	H	ME
Bintje		7860	L	yellow	yellow	Ob	waxy	H	G	M	CO
Blackberry	7253		M	purple-black	purple	R	moist, firm	M-H	G	G	ME
Blue Gold	7255	7760	E-M	blue-purple	yellow	R	moist, waxy	M	G	G	ME
Caribou Russet	7259	7765	M	russet	white	L	dry, floury	M-H	E	M	ME
Carola		7770	M	yellow	yellow	Ob	moist, firm	H	G	H	ME, CO
Chieftain	7180	7650	E-M	pinkish-red	white	R-Ob	mealy, floury	H	F	H	ME
Dark Red Norland	7190	7670	E	dark red	white	Ob	moist, firm	H	F	H	ME
Desiree		7865	L	rose red	yellow	L-Ov	moist, firm	H	G	M	CO
Elba	7345	7870	L	buff	white	R	moist, firm	H	E	H	ME
Envol		7680	VE	buff	white	R	floury	M	G	M	ME
Eva		7775	M	buff	white	R-Ob	mealy, floury	M	E	H	ME
French Fingerling	7120	7620	M-L	dark rose-red	yellow w/ pink	F	waxy	H	G	H	ME
German Butterball	7360	7880	L	yellow w/ light russet	yellow	Ob	medium-dry	M-H	E	G	ME, CO
Gold Rush Russet	7265		M	russet	white	Ob	dry, floury	H	G	G	ME
Green Mountain		7890	L	buff	white	Ob	dry, floury	M	E	M	ME
Katahdin		7900	L	buff	white	R	moist, firm	H	E	M	ME
Kennebec	7270	7790	M	buff	white	Ob	moist, firm	H	E	M	ME
Keuka Gold	7280	7800	M	buff	light yellow	Ob	moist, firm	H	G	H	ME
La Ratte	7130	7622	L	yellow netted	yellow	F	waxy	H	G	G	CO
Lehigh	7363	7905	M-L	yellow	light yellow	R	waxy	M-H	E	G	ME
Magic Molly	7140	7625	M-L	deep purple	purple	Ob	moist, waxy	H	E	G	ME
Masquerade		7805	M	yellow w/ purple spots	yellow	R	dry, floury	H	G	G	CO
Natascha		7695	E	yellow	yellow	Ob	waxy	H	G	H	ME
Nicola		7810	M	deep yellow	dark yellow	L-Ov	waxy	M-H	G	G	CO
Pinto	7145	7628	L	red w/ yellow spots	yellow	F	moist, firm	H	G	H	ME
Purple Majesty		7815	M	purple	purple	Ob	moist, firm	M	F	M	ME
Purple Viking	7300	7820	M	purple w/ pink splashes	white	R	moist, firm	H	E	H	CO
Red Gold		7700	VE	pink w/ red eyes	yellow	Ov	waxy	H	F	M	ME
Red Maria	7305	7830	M	red	white	R	moist, firm	H	G	H	ME
Red Pontiac		7910	L	red	white	R	moist	H	E	M	ME
Red Thumb		7630	L	red	pale red	F	waxy	M	G	M	ME, CO
Russet Burbank	7370	7930	VL	russet	white	L	dry, floury	H	E	H	ME
Sangre		7720	E	deep red	white	Ob	moist, firm	M-H	E	G	CO
Satina	7225		E-M	yellow	yellow	R	moist, firm	H	E	H	ME
Soraya	7310	7843	M	yellow	yellow	Ov	moist, firm	H	G	H	NY
Strawberry Paw	7327	7845	M	bright red	white	R	moist, firm	H	E	H	ME
Upstate Abundance		7730	E	buff	white	R	firm, creamy	H	E	M	NY
Vivaldi	7330		E-M	pale yellow	pale yellow	Ov	moist, firm	H	G	M	ME
Yukon Gem	7228	7735	E	yellow w/pink eyes	yellow	R-Ob	firm, creamy	H	G	H	ME
Yukon Gold	7230	7740	VE	yellow-buff w/pink eyes	yellow	Ov	firm, fluffy	M	E	M	ME

Chart Key

OG:	Organically Grown
CS:	Conventional Seed
Maturity:	VE = very early E = early M = midseason L = late VL = very late
Shape:	R = round L = long Ob = oblong Ov = oval F = fingerling
Yield:	M = medium H = high
Storage:	F = fair G = good E = excellent
Scab Resistance:	M = moderate G = good H = high
State certification agency:	ME = Maine CO = Colorado NY = New York



SCATTERSEED PROJECT

Will Bonsall moved to Industry, ME, in 1971 to live simply and self-sufficiently. He runs Khadighar Farm. Will's Scatterseed Project hosts and preserves thousands of genetically diverse crops well-suited to Maine's seasons and soils. The project focuses on a few vegetable families and makes a valiant effort to keep viable a healthy selection of genetics. One of Will's main focuses is clonally propagated tubers with more than 700 varieties of potatoes and the most extensive Jerusalem artichoke collection in North America.

Because two-season, or biennial, crops are hard to overwinter or store in our Maine climate, there are few growers in New England saving seed for crops such as rutabagas, leeks or turnips. However, Will tends a magnificent collection of these as well, concentrating on those crops that excel in our challenging climate.

To round out his collection and to emphasize self-sufficiency, Will plans to add what he considers the easier crops to his seed-saving work, like beans, tomatoes and grains.

The vital work of seed-saving doesn't leave much room or time for raising market crops. Will earns little revenue from his crusade. Scatterseed may be the only place on the planet where some of these varieties are still alive. Here a little more labor can mean huge success. Your donations make a real impact—$4,482.18 in 2023! Scatterseed relies on our support. Consider making a donation on the Potatoes, Onions & Exotics order form (p. 163 or online) to keep the work going and to ensure that we can continue to enjoy our world of vegetable wonders.

To learn about Will's growing methods, check out his book: *Will Bonsall's Essential Guide to Radical, Self-Reliant Gardening*, (**9819** in the Books section).

Items on this page ship in spring.

FARM SEED PLANTING GUIDE

Item	Type	Best Uses[1]	Planting Time[2]	Optimum pH	Seeding Rate[3] /1000 sq ft	Seeding Rate[3] /acre	Nitrogen Fixation[4]	Organic Matter[5]
8001	Alfalfa, all types	hay, pasture, N-fix, OM, bees	8+ weeks before FF	6.5-7.0	1/2#	15-25#	high	medium
8004	B&B Mix	WC, OM	Early Summer	6.0-7.5	2#	75#	low	high
8006ff	Barley	WC, food, SC-N, feed	Spring, soil at least 55°	6.0-7.5	3-4#	100-180#	—	medium
8011	Bell Bean	N-fix, OM, food, feed	Spring or Fall	6.0-7.0	5#	150-200#	high	medium
8013	BMR Sorghum/Sudangrass	pasture, OM, WC, SC-N, EC	Soil over 60°	6.0-7.5	2#	40-80#	—	high
8019	Buckwheat, common	food, bees	80-90 days before FF	6.0-6.5	1#	40-60#	—	low
		WC, SC-P	LF to 4 weeks before FF	6.0-6.5	3#	80-120#	—	low
8020	Camelina	bees, SC, food, feed	2 wks before to 2 wks after FF	5.6-6.5	1/4#	5-10#	—	low
8022	Chicory, Forage	pasture	Soil over 55°	5.5-7.5	1/4#	10#	—	low
8025	Clover, Crimson	pasture, hay, N-fix, WC, bees	Soil over 65°	5.0-8.0	1-2#	25-50#	high	medium
8028ff	Clover, Red, all types	N-fix, hay, pasture, OM, bees	Soil over 50°	6.0-7.5	1/2#	15-20#	medium	medium
8037ff	Clover, White, all types	pasture, N-fix, OM, lawn, EC, bees	Late Winter to FF	6.5-7.5	1/4-1/2#	4-15#	medium	medium
8046	Clover, Yellow Sweet	N-fix, OM, bees	Spring & Summer	6.0-8.0	1/2#	15-20#	high	medium
8060	Cover Crop Cocktail	OM, SC, WC	MS to FF	5.5-7.5	1-2#	50-75#	medium	high
8061	CR Lawn Mix	lawn, orchard groundcover	LF to MS	6.0-7.0	3-4#	100-150#	low	medium
8062	Magic Carpet Mix	OM, WC, bees, SC, EC	Early to Mid-Spring	6.0-7.0	1/2#	25#	medium	medium
8064	Millet, Japanese	WC, OM, SC, silage, hay, pasture	2 wks before LF, to MS	5.5-6.0	1#	40-60#	—	high
8070	Mustard	PC, SC	Spring to FF	5.5-8.3	1#	15-25#	—	low
8076ff	Oats, all types	WC, OM, straw, feed	Soil over 50°, Spring to FF	5.0-6.5	3-4#	100-150#	—	high
8088	Orchard Grass	pasture, hay	Late Winter to Late Summer	5.8-7.5	1#	20-40#	—	high
8094	Pasture Mix	pasture	Mid-Spring to Late Summer	6.0-7.0	1#	40-50#	low	high
8097	Pea, Field/Forage	pasture, silage, N-fix, WC	Spring, soil over 45°	6.0-7.0	5#	100-200#	medium	low
8103	PVO Mix	OM, N-fix, WC	Mid-Spring to Late Summer	6.0-7.0	5#	150-200#	medium	medium
8105	Radish, Daikon	SC, EC	Late Summer to FF	6.0-7.5	1/2#	5-15#	—	low
8109	Rye, Winter	OM, WC, SC, food, EC	2 wks before to 2 wks after FF	5.0-7.0	3-5#	100-200#	—	high
8112	Rye/Vetch Mix	N-fix, OM, WC, EC	2 wks before FF to FF	6.0-7.0	2-3#	80-100#	low	high
8121	Ryegrass, Annual	OM, WC, EC, SC-N	Soil over 50°	6.0-7.0	1-2#	25-35#	—	high
8124	Ryegrass, Perennial	pasture, WC, OM, EC, SC-N	2 weeks before LF, to FF	5.2-8.0	1-2#	30-60#	—	high
8133	Sunn Hemp	OM, N-fix, PC	Soil over 60°, to Late Summer	5.0-7.5	1-2#	30-50#	medium	medium
8136	Timothy	hay, pasture	Mid-Spring to Late Summer	5.5-7.0	1/2#	12-15#	—	high
8139	Vetch, Hairy	N-fix	Mid-Spring to FF	6.0-7.0	1#	25-40#	medium	low
8143	Wheat, Spring	OM, food	Soil over 50°	6.0-7.0	3-4#	100-125#	—	medium
8149ff	Wheat, Winter	OM, WC, food, feed	2 wks before FF to FF	6.0-7.0	3-4#	100-150#	—	medium

Wheat stacks.

Our costs fluctuate with the weather, transportation costs and availability. We will make every effort to honor the prices published in the catalog, but if we have to purchase additional inventory we will adjust prices accordingly. See our website for the most current prices or call 207-426-9900 if you have questions.

fedcoseeds.com

Where variety is not stated, plant characteristics may vary because we purchase seed from multiple suppliers based on price and availability.

Chart Key: ff=and following

[1] **Best Uses:**

bees: provides bee forage for honey production
feed: produces a grain or bean suitable for animal consumption
food: produces a grain or bean suitable for human consumption
EC: erosion control—roots hold soil well
hay: maintains nutritional quality when dried
lawn: suitable for heavy traffic areas, withstands mowing
N-fix: green manure fixes nitrogen, available to subsequent crops when tilled into soil
OM: organic matter—soil builder green manure, produces fibrous biomass and improves soil structure
pasture: superior nutrition and yield, withstands grazing
PC: pest control—reduces insect, disease, or nematode pressure
SC: scavenger crop—quickly takes up nutrients from soil, preventing their loss to erosion or leaching. **N:** nitrogen, **P:** phosphorus
WC: weed control—physically out-competes or chemically inhibits weeds

[2] **Planting Time:**

LF = Last Frost in spring
FF = First Frost in autumn
MS = Midsummer

[3] **Seeding rates are based on drilled seed in organically managed fields. Seeding rates vary depending on crop use, timeliness of planting, method of seeding, weed pressure, soil conditions, seed size, and whether the crop is planted alone or in a mix.**

If you need help figuring out what seeding rate to use, please give us a call.
For most seed, use the smaller amount in mixes and the larger amount solo.
For broadcasting, increase 20–25%.
For use in precision planters, decrease 10–50%.
For late planting, increase 20–50%.
For forage or weed control uses, increase 30–50%.

[4] **Nitrogen Fixation:** Rhizobial bacteria form symbiotic relationships specifically with the roots of leguminous crops to convert atmospheric nitrogen (which is unavailable to plants) to ammonia and nitrates (which are available to plants). Legumes can often furnish nearly all of their own nitrogen needs this way—exactly how much depends on the species, the soil structure, and weather conditions. If the crop is removed from the field, the fixed nitrogen is removed as well, with little or no residual added nitrogen remaining in the soil; however, if the crop is turned in and incorporated into the soil, the fixed nitrogen is added to the soil and is available in slow-release forms to the following crop. Legume species have varying capacity to fix atmospheric nitrogen.

[5] **Organic Matter, or Biomass:** These ratings reflect relative quantities of fibrous biomass. Succulent biomass makes a rapid contribution to available soil nutrients but does not contribute to the long-term carbon content of the soil. Fibrous biomass helps build humus, which improves soil texture and increases nutrient-holding capacity.

FARM SEED

See individual seed descriptions, alphabetized by common name, for more information about specific uses.

Cover Crops By adding sustainable sources of energy, such as soil amendments, organic fertilizers and cover crops that feed the soil, we enhance the health of our crops and ultimately ourselves. Green manures take up and store nutrients to be used by subsequent crops, suppress weeds, host beneficial insects, improve the structure and arability of the soil, and can even break up clay and hardpan. For cover crops, consider legumes (alfalfa, bell beans, clovers, peas, sunn hemp and vetch), grains (barley, Japanese millet, oats, rye and wheat), a few other special crops like BMR sorghum, buckwheat, camelina, mustard and daikon radish. Check out our cover crop mixes **8004** B&B Summer Mix, **8060** Cover Crop Cocktail, **8062** Magic Carpet Mix, **8103** PVO Soil-Building Mix, and **8112** Vetch/Winter Rye Mix.

Perennial Pasture Intensive rotational grazing allows the farmer to raise more animals per acre and reduces parasite loads, while maximizing the pasture's potential as a carbon sink. (See "Impacts of soil carbon sequestration on life cycle greenhouse gas emissions in Midwestern USA beef finishing systems" in *Agricultural Systems*, May 2018 issue.) For best results, reseed or overseed your perennial pastures at least once every 5 years. Consider **8094** Pasture Mix, clovers, orchard grass, perennial ryegrass, timothy, tall fescue and chicory.

Perennial Hay Species for perennial hay are selected for hardiness, yield, ease of drying, palatability, and nutritional benefit. Begin your first cut as early as possible. Hay is at its prime when the plants are in the early flowering stage—while grass yields will increase after this point, quality and digestibility will decline sharply. An early first cut also increases the chance of getting that prime leafy second-cut hay in August or September. Consider alfalfa, crimson clover, Freedom red clover, orchard grass and timothy.

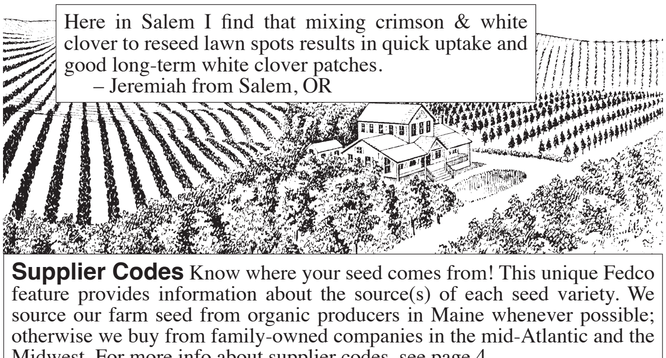
Annual Forage Producers seeking higher yields, top-quality feed and more rotation options in their field crops have begun turning more often to annual forages. These stands may be used for grazing, ensiling, baling or dry hay depending on your situation and equipment. Annual forages may also be used to help establish perennial hay or pasture, protecting the slower-growing perennials while allowing a harvest the first year. Consider BMR, chicory, mammoth red clover, Japanese millet, oats, peas and rye.

Grain for People There is a ready market for local food-grade grain suitable for brewing or baking; larger-scale growers are selling to specialty mills, while smaller growers are having grain custom-harvested and then milling their own "estate-grown" flours for sale at farmers markets. Many grains may even be grown in small gardens and processed with minimal investment for home use. Consider barley, buckwheat, camelina, oats, rye and wheat. Find more seed for specialty grains for human consumption on page 31 of the Seeds section.

Grain for Feed Grains are essential to growing hogs and poultry, whose single stomachs do not handle a high-fiber forage-based diet well. In ruminants, grains support high milk production, speed growth rates, and improve body condition, especially during the winter when energy demands are higher and forage quality lower. Consider barley, bell beans, buckwheat, camelina, field corn, oats, peas and wheat.

Pollinator-Friendly Crops Planting flowering crops on "idle" ground is a gift to your bees. Choosing a number of different cover crops that bloom at different times of the season will ensure your bees have a constant source of food. Consider alfalfa, buckwheat, camelina, clovers, mustard, daikon radish and vetch.

Lawn Seed You can't quite plant your entire yard to vegetables, herbs, flowers, berries and fruit trees, because then there would be no place for your reclining lawn chair and bocce tournaments. Try **8061** CR Lawn Mix and Dutch white clover.



> Here in Salem I find that mixing crimson & white clover to reseed lawn spots results in quick uptake and good long-term white clover patches.
> – Jeremiah from Salem, OR

Supplier Codes Know where your seed comes from! This unique Fedco feature provides information about the source(s) of each seed variety. We source our farm seed from organic producers in Maine whenever possible; otherwise we buy from family-owned companies in the mid-Atlantic and the Midwest. For more info about supplier codes, see page 4.

① Small seed farmers including Fedco staff.
② Family-owned companies or cooperatives, domestic and foreign.
③-⑤ None of our farm seed comes from larger corporations!

Alfalfa - Organic *Medicago sativa* Perennial legume. Up to 3' high. This fragrant plant with beautiful purple flowers is a favorite for multi-year stands. Home gardeners like to cut it and add it to their compost piles. Herbalists consider it a valuable nutritive tonic. Excellent feed for all classes of livestock. Best suited to light well-drained soils; establishment and winter survival will be inhibited by heavy or wet soils because alfalfa's taproot makes it susceptible to heaving. Delicate seedlings benefit from a nurse crop of barley or oats. Seed at 25#/acre, 15# in mixes, 1/2#/1000 sq ft. *We usually source inoculated seed; please check website for current status*. ①②

As perennial hay: Typically interplanted with grass in organic systems. Often rotated with field corn on livestock farms (2–3 year alfalfa stand followed by 1–2 years of corn).

As cover crop: An excellent choice to build organic matter and nitrogen in fields that will be taken out of production for more than one year. Regular mowing will help deter quackgrass and annual weeds.

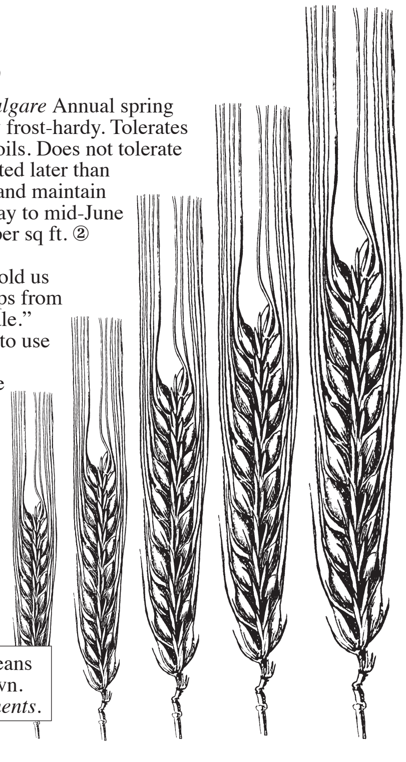
8001 ***A**: 0.5# (0#) for $11.00*
***B**: 2# for $30.00*
***C**: 10# for $110.00*
***E**: 50# for $420.00*

B&B Summer Mix Maybe "B&B" conjures images of a restful weekend with late-morning French toast on a sunny porch, or maybe you're a devotee of the fine digestif blend of Benedictine and brandy. Here, the Bs stand for buckwheat and BMR sorghum/sudangrass, plus we threw in enough sunn hemp to fix a little nitrogen (but not enough to ruin the alliteration). This popular **cover crop** blend reliably winter-kills. A first-rate smother crop and biomass builder. Perfect for areas where a cash crop has failed or weeds have taken over. Loves heat. Plant in June or July and mow when the buckwheat is in full flower. Till after the residue has broken down some if you want to plant a late-season crop, or mow periodically through the fall. The stubble will die back over the winter and you will enjoy weed-free high-tilth soil next spring. Availability of BMR sorghum/sudangrass has been spotty; we may substitute **8064** Japanese Millet at our discretion. Plant at 75#/acre or 2#/1000 sq ft. ②

8004 ***A**: 0.5# (0#) for $8.50* ***B**: 2# for $12.50*
***C**: 10# for $50.00* ***D**: 45# for $155.00*

Hulless Barley - Organic *Hordeum vulgare* Annual spring grain. Up to 4' high. Moderately frost-hardy. This barley is truly hulless, meaning you thresh it like wheat and it separates from the plant with no outer husk clinging on. Not having to remove the hulls means much less processing, which in turn means all the bran and germ are retained for maximum nutrition and depth of flavor. As a **food grain**, it takes a bit longer to cook than pearled barley, but we prefer the taste and texture of hulless! Our grower calls this variety Tibetan Hulless, and it is said to have entered the U.S. in the pocket of a servicemember returning home from a tour of duty. Tolerates drought and alkaline or heavy soils. Does not tolerate wet or acidic soils. Fast growing, it competes well with weeds and can mature faster than winter wheat. Some resistance to lodging. Ready to harvest as early as the end of July in Maine. Seed as early as the soil can be worked at 150–180# per acre, 3½–4# per 1000 sq ft. ① **NEW!**

8006 ***B**: 2# for $10.50*
***C**: 10# for $44.50*
***D**: 45# for $136.50*



Barley - Organic *Hordeum vulgare* Annual spring grain. Up to 3' high. Moderately frost-hardy. Tolerates drought and alkaline or heavy soils. Does not tolerate wet or acidic soils. May be planted later than other spring-sown small grains and maintain good yields. Seed from early May to mid-June at 100–125# per acre, 3#/1000 per sq ft. ②

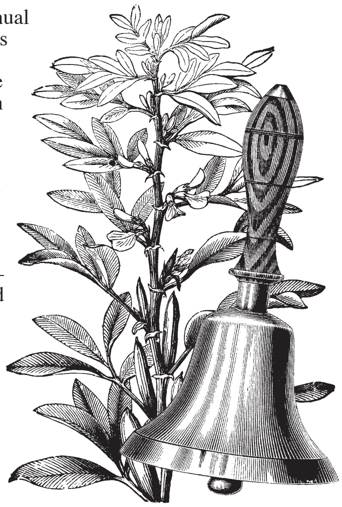
As food grain: Suitable for malting—a local home brewer told us "when brewed with Cascade hops from Fedco Trees, it made excellent ale." Requires commercial dehulling to use as a cooking grain or flour.

As feed grain: More reliable in Maine's climate than corn or wheat, with nearly as much feed value, and better feed value than oats.

8007 ***B**: 2# for $7.25*
***C**: 10# for $27.50*
***E**: 48# for $105.00*

Organic following an item name means the seed is certified organically grown.
All our seed is free of fungicide treatments.

Bell Beans *Vicia faba* Annual or winter annual legume. Up to 5' high. Frost-hardy. Bell beans (aka small-seeded fava beans) are like **8133** Sunn Hemp's tough cousin—the one with the full sleeve tattoos who hiked the Appalachian trail in the winter. Like sunn hemp, bell beans boast unusual versatility—by fixing atmospheric nitrogen and building generous amounts of carbonaceous biomass. But while sunn hemp is a tropical beauty who crumples at the first sign of frost, hardy bell beans will happily sprout in half-frozen soil and may keep growing even after the first snows. Stiff-stalked plants with fleshy glabrous leaves and pretty purple-tinged white flowers. Tolerates a wide range of soil conditions, though sensitive to heat and drought at flowering. Raw seed; use with **8161** Field Pea/Vetch inoculant. Seed 2" deep at 150-200#/acre, 5#/1000 sq ft. ②

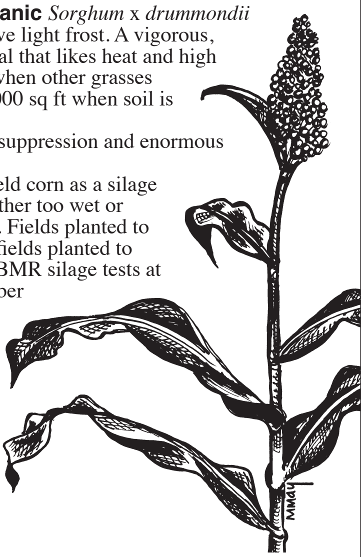


As cover crop: Plant in very early spring to mow and incorporate at flowering, or in mid-fall to protect soil from fall rains before they succumb to cold at 10–15˚.

As feed grain: In temperate climates with long cool springs or warmer winters than we have in Maine, bell beans are a great alternative to peas or soy; plant in late fall for harvest in mid-spring. They don't perform well as a grain crop in Maine because they won't survive winter and if spring-planted tend to drop their blossoms without setting pods in temperatures over 70˚.

8011 ***B****: 2# for $8.00* ***C****: 10# for $32.25* ***D****: 45# for $95.50*

BMR Sorghum/Sudangrass - Organic *Sorghum* x *drummondii* Annual grass. Up to 6' high. Will survive light frost. A vigorous, competitive and adaptable hybrid annual that likes heat and high fertility. Grows best in warm weather when other grasses slow down. Seed at 40–80#/acre, 2#/1000 sq ft when soil is thoroughly warmed. ②

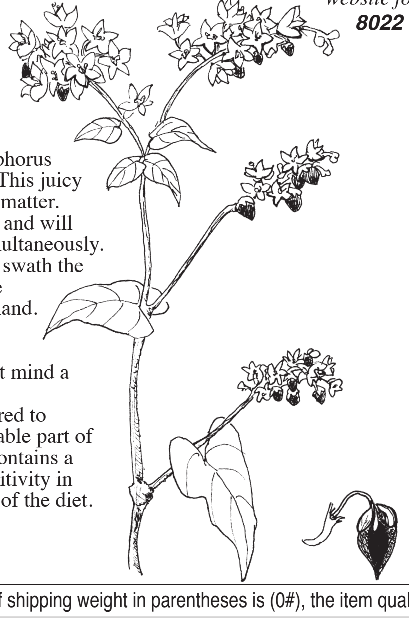


As cover crop: Unsurpassed weed suppression and enormous amounts of organic matter.

As annual forage: BMR can outyield corn as a silage crop, especially when conditions are either too wet or too dry for optimum corn performance. Fields planted to BMR will suffer less soil erosion than fields planted to corn. Cut at 3–4' high for best quality. BMR silage tests at about 15% crude protein, with better fiber digestibility and only slightly lower total energy than corn. Tolerates mowing and can be used for hay, though it is high in moisture and must be conditioned to dry down properly. Severe drought and frost can increase prussic acid content to dangerous levels: do not feed to livestock under these conditions.

8013 ***B****: 2# for $12.75*
C*: 10# for $55.75*
E*: 50# for $180.50*

Buckwheat, Common - Organic *Fagopyrum esculentum* Annual broadleaf. Up to 4' high. Frost-sensitive. Large-seeded Japanese buckwheat with short maturity will tolerate most conditions, including soil pH as low 4.8. Bees like its abundant nectar. As a cover crop, seed at 80–120#/acre, 3#/1000 sq ft. As a grain crop, seed at 40–60#/acre, 1–2#/1000 sq ft. ①②



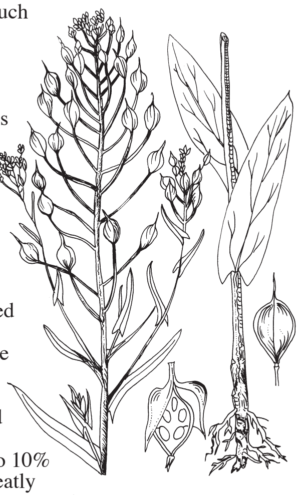
As cover crop: Excellent smother crop. Short maturity allows 2–3 crops per season. Should be mowed short or tilled in before it sets seeds. Responds well to fertility, holding it for subsequent crops. Makes calcium and phosphorus available for the next crop. Loosens clay soils. This juicy low-cellulose plant does not help build organic matter.

As food grain: Buckwheat is indeterminate and will have mature seeds, green seeds and flowers simultaneously. When a majority of seeds are mature, scythe or swath the crop and field-dry for as long as possible before harvesting with a pickup head or threshing by hand. Buckwheat seeds are about 20% hull, which is removed during commercial milling, but the whole seed may be ground for flour if you don't mind a coarser texture and some black flecks.

As feed grain: High levels of lysine compared to other non-legumes can make buckwheat a valuable part of the ration. High in fiber and unsaturated fats. Contains a compound, fagopyrin, that can cause photosensitivity in light-skinned animals: restrict to less than 30% of the diet.

8019 ***B****: 2# for $10.50*
C*: 10# for $43.00*
D*: 45# for $103.00*
E*: 50# for $114.50*

Winter Camelina *Camelina sativa* Also called **Gold-of-Pleasure.** Winter annual brassica. Up to 3' high. Very hardy: seed can germinate at soil temperatures as low as 34˚, and the plants overwinter as well as rye. Widely adaptable and versatile cover crop and oilseed plant. Native from Finland to Romania and east to the Ural mountains. Young plants grow in a rosette form, similar to mache; as plants mature, they stretch into fibrous stalks with branching golden inflorescences like mustard. Tolerates low fertility and drought, and not very susceptible to pests or disease. Does not like wet feet. Plant when you would plant winter rye, around first fall frost. Late-planted camelina can germinate in spring instead of fall and still produce a crop. Small seeds and delicate seedlings: can be difficult to establish. Seed no more than 1/2" deep at 5–10#/acre, 1/4# per 1000 sq ft. ②



As cover crop: May be interseeded into late-harvested crops without offering as much competition as rye. It is a very effective nutrient scavenger, holding excess soluble nitrogen for the following year's crops instead of allowing it to leach and damage groundwater quality. Very attractive to bees and other beneficial insects; blooms in early to mid-spring before other nectar-producing flowers. Not very competitive with weeds but it's a better nutrient scavenger than radishes and tolerates drought better than mustard.

As food: Seed is ready to harvest in early summer. It may be direct-combined but the little seeds easily leak from unsealed cracks and crevices in machinery: liberal use of duct tape is recommended. Seeds are approximately 40% oil by weight. Oil is very high in vitamin E and omega-3 fatty acids. Seed yields in Minnesota are around 1700#/acre.

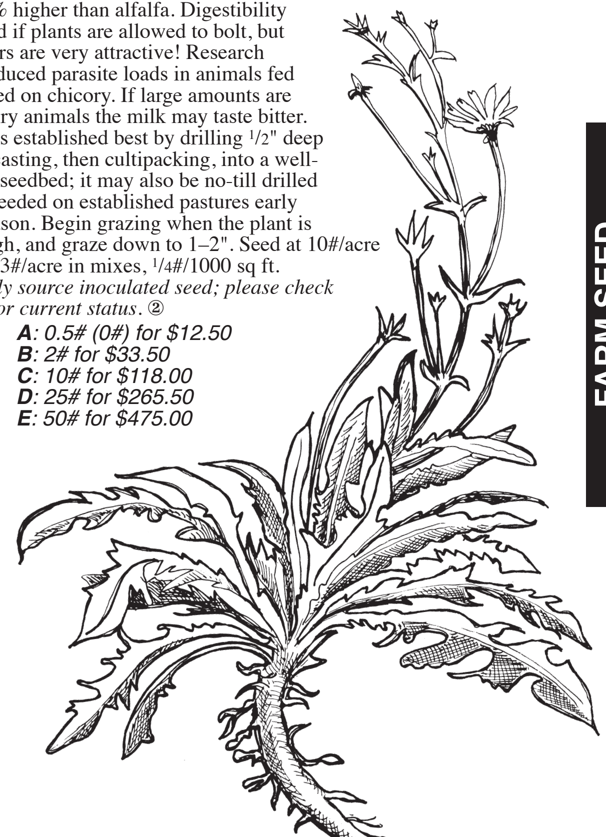
As feed: Seed meal may be fed as up to 10% of the diet for cattle and chickens. May greatly increase the omega-3 fatty acid content of eggs and dairy products, but it will reduce growth rates in hogs.

8020 ***A****: 0.5# (0#) for $8.00* ***B****: 2# for $21.00*
C*: 10# for $92.00* ***E****: 50# for $314.50*

Forage Chicory *Cichorium intybus* Perennial broadleaf. Up to 18" (flower stalks up to 6'). Tap-rooted plant with bright blue flowers suited to well-drained moderately acidic soils.

Annual or perennial forage: well-managed stands may persist 5 years or longer, but also valuable in annual stands for pasture or green chop. Very high digestibility and protein levels up to 50% higher than alfalfa. Digestibility is reduced if plants are allowed to bolt, but the flowers are very attractive! Research shows reduced parasite loads in animals fed or pastured on chicory. If large amounts are fed to dairy animals the milk may taste bitter. Chicory is established best by drilling 1/2" deep or broadcasting, then cultipacking, into a well-prepared seedbed; it may also be no-till drilled or frost-seeded on established pastures early in the season. Begin grazing when the plant is 8–10" high, and graze down to 1–2". Seed at 10#/acre alone, or 3#/acre in mixes, 1/4#/1000 sq ft. *We usually source inoculated seed; please check website for current status*. ②

8022 ***A****: 0.5# (0#) for $12.50*
B*: 2# for $33.50*
C*: 10# for $118.00*
D*: 25# for $265.50*
E*: 50# for $475.00*



CLOVER

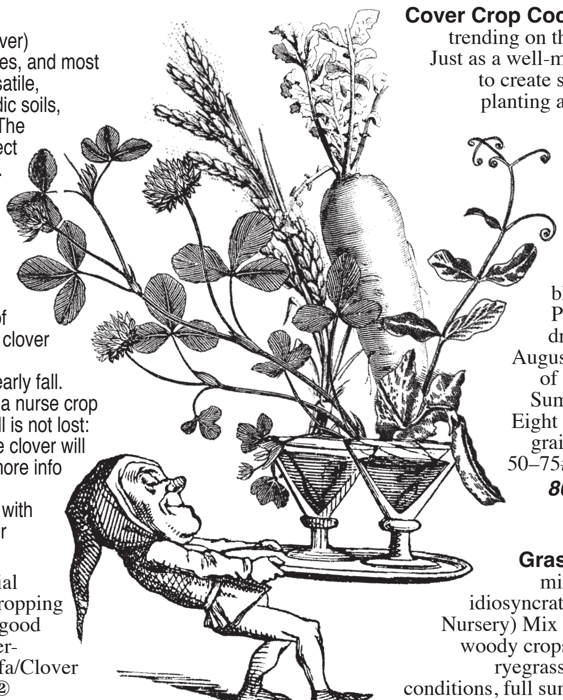
Trifolium spp. (except Yellow Sweet Clover)

The *Trifolium* genus is home to more than 300 species, and most are native to the northern hemisphere. Clover is versatile, performs well in Maine's cool humid climate and acidic soils, fixes atmospheric nitrogen, and attracts pollinators. The taller red clovers are better hay plants, with more erect habit and greater biomass, and they dry more easily. Red clover blossoms, fresh or dried, make one of our favorite teas. White clovers perform better in pastures and lawns, as they tolerate close mowing (or nibbling) and heavy traffic.

No matter what kind of clover you choose, be sure to plant plenty to increase your chances of finding those lucky four-lobed specimens: a survey of approximately 7 million clovers found that 1 in 5,000 clover leaves exhibit this trait!

Clover may be planted from late winter through early fall. Seedlings are slow to establish and will benefit from a nurse crop of oats. If annual weeds come up with your clover, all is not lost: keep the plot regularly mowed and by midseason the clover will have outcompeted the weeds. See our website for more info about varieties.

Most clovers are pre-inoculated and clay-coated with an OMRI-approved coating; please check website for inoculation info for specific varieties.



Crimson Clover *T. incarnatum* Tender biennial legume. Up to 18". Vigorous clover for cover cropping and bee forage. Stunning crimson spikes make good cutflowers. Biennial, often but not always winter-killed in Maine. Raw seed; use with **8158** Alfalfa/Clover Inoculant. Seed 25–50#/acre, 1½#/1000 sq ft. ②

8025 ***A**: 0.5# (0#) for $7.25* ***B**: 2# for $13.50*
***C**: 10# for $60.00* ***E**: 50# for $196.00*

Freedom Red Clover *T. pratense* Short-lived perennial legume. Up to 24". High-yielding red hay clover with glabrous stems for fast dry-down. Seed at 15–20#/acre alone, 8–10#/acre in mixes, ½#/1000 sq ft. ②

8028 ***A**: 0.5# (0#) for $9.50* ***B**: 2# for $25.00*
***C**: 10# for $110.00* ***D**: 25# for $185.00*

Mammoth Red Clover - Organic *T. p.* Biennial legume. Up to 36". Vigorous red clover for cover cropping or grazing. Seed early at 15–20#/acre alone, 5–10#/acre in mixes, ½#/1000 sq ft. ②

8031 ***A**: 0.5# (0#) for $8.50* ***B**: 2# for $17.75*
***C**: 10# for $80.50* ***E**: 50# for $271.00*

Medium Red Clover - Organic *T. p.* Short-lived perennial legume. Up to 24". Red clover for underseeding or grazing. Seed 15–20#/acre alone, 8–10#/acre when mixed with grass seed, 10–12#/acre in undisturbed sod, ½#/1000 sq ft. ②

8034 ***A**: 0.5# (0#) for $9.50* ***B**: 2# for $22.00*
***C**: 10# for $99.00* ***E**: 50# for $340.00*

Alice White Clover *T. repens* Perennial legume. Up to 4–8". Vigorous large-leafed white clover. Readily self-seeds. Excellent for improving soil quality in areas transitioning from woody growth; plant with **8121** Annual Ryegrass for this purpose. Frost-seed at 4–5#/acre, or 2–3# when mixed with grasses, ¼#/1000 sq ft. ②

8037 ***A**: 0.5# (0#) for $11.00* ***B**: 2# for $28.75*
***C**: 10# for $115.00* ***D**: 25# for $239.50*

Dutch White Clover *T. r.* Perennial legume. Up to 6". The lowest-growing white clover. Recommended for lawns and living mulch. Shade-tolerant. Seed at 5–10#/acre, ½#/1000 sq ft. ②

8040 ***A**: 0.5# (0#) for $10.75* ***B**: 2# for $28.00*
***C**: 10# for $124.50* ***D**: 25# for $217.00*

Ladino White Clover *T. r.* Perennial legume. 8–12" tall, among the largest white clovers. Among white clovers, Ladino is known to fix the most nitrogen per acre and will outperform others on poorly drained soil. Resents shallow soils prone to drought. Seed it on its own, or follow Will Bonsall's lead and sow under corn after hilling in midsummer. As a **forage**, high marks for protein, digestibility and ease of establishment. Frost-seed at 4–5#/acre, or 2–3# when mixed with grasses; ¼#/1000 sq ft. ②

8041 ***A**: 0.5# (0#) for $9.25* ***B**: 2# for $22.50*
***C**: 10# for $100.00* ***E**: 50# for $350.00*

Rivendell White Clover - Organic *T. r.* Perennial legume. Up to 9". Small-leafed white clover establishes quickly and withstands traffic and close mowing. Seed early at 5–10#/acre, ¼# per 1000 sq ft. ②

8043 ***A**: 0.5# (0#) for $14.25* ***B**: 2# for $42.50*
***C**: 10# for $165.00* ***D**: 25# for $366.50*

Yellow Sweet Clover - Organic *Melilotus officinalis* Biennial legume. Up to 6'. Vigorous taprooted thick succulent clover for cover cropping and bee forage. Seed at 15–20#/acre, ½#/1000 sq ft. ②

8046 ***A**: 0.5# (0#) for $8.25* ***B**: 2# for $19.50*
***C**: 10# for $86.50* ***E**: 50# for $293.50*

Cover Crop Cocktail - Organic Complex cover crop blends are trending on the organic ag scene; so what's all the buzz about? Just as a well-mixed cocktail balances a variety of flavor profiles to create something that is greater than the sum of its parts, planting a well-designed blend of multiple cover crops can accomplish more than planting a single species. With annuals and biennials, grasses and legumes and broadleafs, and roots of all shapes and sizes, this blend mimics natural diversity and encourages a flourishing and balanced microbial population. Another advantage of diverse blends is that if your field conditions are not conducive to one or two species in the blend, the others will help take up the slack. South Paw Farm in Freedom, ME, praised the mix for its drought resistance. Best for long rotations: plant in August or September and allow to grow to midsummer of next season. For shorter windows, try **8004** B&B Summer Mix or **8112** Vetch/Winter Rye Mix instead. Eight components including peas, winter grains, spring grains, clover, daikon radish and hairy vetch. Seed at 50–75#/acre or 1–2#/1000 sq ft. ①②

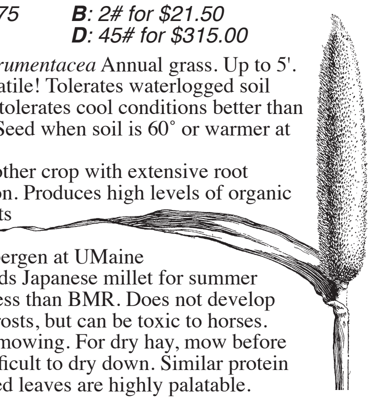
8060 ***B**: 2# for $12.00*
***C**: 10# for $52.75*
***D**: 45# for $159.50*

Grass Seed: CR Lawn Mix All-purpose grass-seed mix for the Northeast, named for Fedco's belovedly idiosyncratic founder. Also called OVN (Orchard-Vineyard-Nursery) Mix because it makes a great understory for perennial woody crops. 50% bluegrass, 30% red fescue, 15% perennial ryegrass and 5% Dutch white clover. Good for a range of conditions, full sun to partial shade. Bluegrass does well in full sun, red fescue in shade. Ryegrass provides quick germination and good color while the other grasses get established; clover adds nitrogen and interest for bees. Seed at 100–150#/acre, 3–4#/1000 sq ft. ②

8061 ***B**: 2# for $23.00* ***C**: 10# for $102.50* ***D**: 45# for $285.50*

Magic Carpet Mix You told us your dreams, and we designed this very diverse multi-species clover-heavy mix as a soil-building **living mulch** for use under tall-growing competitive crops. Could also be used for other crops if kept neatly trimmed. Suitable in raised beds, containers and high tunnels. The exact formula may vary according to what seed we have available, but expect a lush carpet of nitrogen-fixing legumes studded with grasses and forbs to contribute biomass and support microbial diversity in your soil. No need for Aladdin's lamp: all the components we use have some degree of shade tolerance. May be used for a single season, however most components are perennial and the remainder will often self-sow. Whether you are growing tomatoes or "tomatoes," take this mix for a ride. Seed at 25#/acre, ½# per 1000 sq ft. ①②

8062 ***A**: 0.25# (0#) for $5.75* ***B**: 2# for $21.50*
***C**: 10# for $93.75* ***D**: 45# for $315.00*



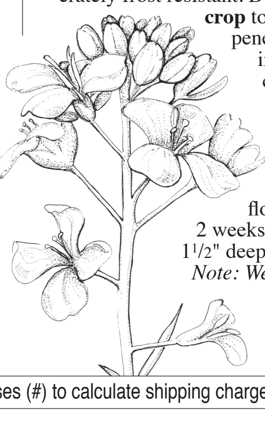
Millet, Japanese *Echinochloa frumentacea* Annual grass. Up to 5'. Frost sensitive. Vigorous and versatile! Tolerates waterlogged soil and low fertility. Prefers heat, but tolerates cool conditions better than BMR or other varieties of millet. Seed when soil is 60° or warmer at 40–60#/acre, 1#/1000 sq ft. ②

As cover crop: Very good smother crop with extensive root system to protect soils from erosion. Produces high levels of organic matter and holds available nutrients for the following crop.

As annual forage: Rick Kersbergen at UMaine Cooperative Extension recommends Japanese millet for summer grazing. Fast growing but yields less than BMR. Does not develop problems with prussic acid after frosts, but can be toxic to horses. Regrows quickly after grazing or mowing. For dry hay, mow before heading, as the thick stems are difficult to dry down. Similar protein levels to BMR, and its fine-textured leaves are highly palatable.

8064 ***B**: 2# for $8.50* ***C**: 10# for $34.75* ***E**: 50# for $100.00*

Mustard *Brassica juncea* or *Sinapis alba* Annual broadleaf. Up to 5'. Moderately frost resistant. Does not tolerate drought. Best as a fall-planted **cover crop** to retain nutrients, suppress weeds, and improve water penetration. Produces large amounts of biomass containing high levels of glucosinolates that break down into compounds toxic to nematodes and soil-borne pathogens (like Verticillium wilt, Rhizoctonia, powdery scab and common scab on potatoes), a phenomenon known as "biofumigation." Some years ago, a lot came in bags featuring a cartoon knight dubbed "The Nematode Slayer." When plants achieve full flower, chop finely and incorporate into the soil. Allow 2 weeks for decomposition before planting a new crop. Plant 1½" deep in a firm moist bed at 15–25#/acre, 1#/1000 sq ft. ②
Note: We cannot ship this item to Oregon's Willamette Valley.



8070 ***A**: 0.5# (0#) for $6.75*
***B**: 2# for $10.75*
***C**: 10# for $45.75*
***E**: 50# for $140.00*

OATS *Avena* spp.

Oats are a real workhorse of a cover crop. They are inexpensive to sow, they're not fussy about their soil, they build generous amounts of carbonaceous biomass, they're competitive with weeds, they love cool weather but tolerate warm weather, they get along well with legumes like peas and clover in mixes, and they die over the winter (at least in New England—they're hardy to 15°) so they don't cause the spring headache that winter rye does.

As if their prowess as a cover crop weren't enough, the grain may be used as food or feed, and oat straw makes some of the finest, softest mulch you'll ever have the pleasure to kneel on. Try planting oats in early August and then planting your garlic into the living oats around mid-October—the oats will die over the winter and your garlic beds will be already mulched come spring. And there's more! Herbalists favor milky oats (oat heads harvested when they are still green and the kernels exude a milky substance when squeezed) as a gentle restorative tonic.

Forage Oats - Organic *A. sativa* Annual grass. Up to 5'. These late-heading vigorous oats have gained a cult following among veggie growers and dairy farmers alike. Compared to common oats, forage oats grow faster, thicker and taller; produce significantly more biomass, making them superior for both cover-cropping/soil-building and for feeding livestock; and mature 2–3 weeks later. If grown to maturity for grain, they have strong straw and high yields of large plump seeds. Sow when soil is over 50°, spring through fall, at 100#/acre, 3#/1000 sq ft. ①

As cover crop: Remarkably quick lush leafy growth makes them especially competitive with weeds, and they generate organic matter like nobody's business. Faster seedling growth than BMR or millet, though these crops will eventually outstrip any oats in height. Customer Alex Redfield told us that his forage oats made as much biomass as common oats sown at twice the rate. Tolerates a wide range of weather and soil conditions. Reliably killed by New England winters, so a better choice for winter soil protection than Winter Rye if you don't want to deal with regrowth and tillage in the spring.

As forage: If cut in the early boot stage (when the flower head is only just detectable inside the leaf sheath) the hay can achieve protein levels of 19% and the plant will regrow for a second crop. Forage oats harvested at the soft-dough stage (when the kernel is developing but still soft enough to cut with a fingernail) achieved dry-matter yields of nearly 4 tons per acre in New England. Makes excellent bedding straw. Also suitable for grazing.

8076 ***B**: 2# for $7.75*
***C**: 10# for $29.75*
***D**: 45# for $75.75*

Streaker Hulless Oats - Organic *A. nuda* Annual grass. Up to 4'. Moderately frost resistant. Most oats have a clinging hull that requires industrial-grade milling to render them suitable for human consumption. Hulless oats are not, in fact, hulless, but like wheat the hull sheds easily during the normal threshing process; for best results, delay harvest until the crop is fully mature. In trial of ten oat varieties, University of Minnesota determined Streaker to be exceptionally high in protein and oil content. So delicious and satisfying, you may want to celebrate with a run through the streets! May be used as a cover crop like other oats, but hulless varieties tend to be somewhat less vigorous than common oats. Streaker has tall plants with medium straw strength; resistant to crown rust. Plant in early spring at 100#/acre, 3#/1000 sq ft. **PVP.** ①

As food grain: 17.5% protein, which is significantly higher than other oats. Higher in oil content, too. To cook, soak in water: what little hull remains will float.

As feed grain: The less-substantial hull lowers the crude fiber levels and improves digestibility compared to common oats. Higher in protein than other small grains, but not higher in lysine.

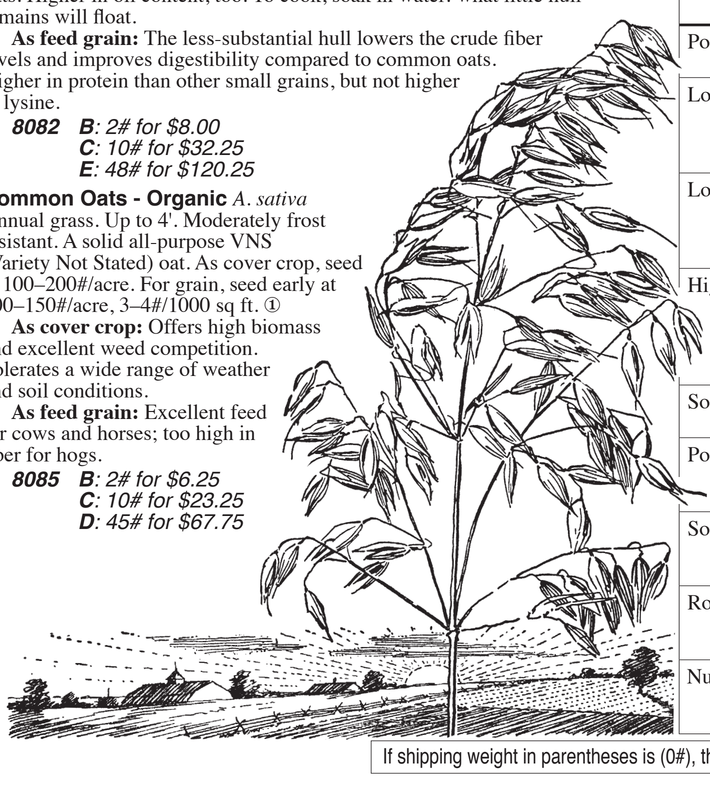
8082 ***B**: 2# for $8.00*
***C**: 10# for $32.25*
***E**: 48# for $120.25*

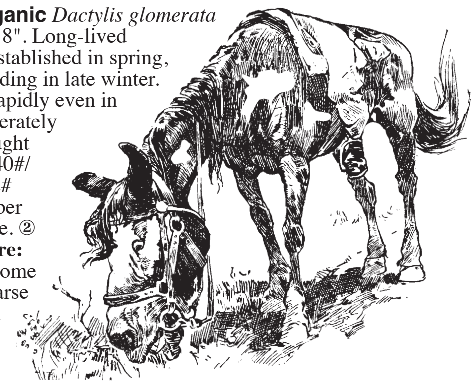
Common Oats - Organic *A. sativa* Annual grass. Up to 4'. Moderately frost resistant. A solid all-purpose VNS (Variety Not Stated) oat. As cover crop, seed at 100–200#/acre. For grain, seed early at 100–150#/acre, 3–4#/1000 sq ft. ①

As cover crop: Offers high biomass and excellent weed competition. Tolerates a wide range of weather and soil conditions.

As feed grain: Excellent feed for cows and horses; too high in fiber for hogs.

8085 ***B**: 2# for $6.25*
***C**: 10# for $23.25*
***D**: 45# for $67.75*





Orchard Grass - Organic *Dactylis glomerata* Perennial grass. Up to 18". Long-lived vigorous grass can be established in spring, summer, or by frost-seeding in late winter. Tall leafy plants grow rapidly even in poor soils, tolerate moderately drained soils, heat, drought and shade. Seed at 20–40#/acre, or 5–6# with 8–12# of alfalfa or red clover per acre. 1#/1000 sq ft alone. ②

As perennial pasture: Grazing will help overcome its tendency to form coarse bunches. Provides good warm-weather growth.

As perennial hay: Bunching habit will be reduced if sown with red clover or alfalfa. More shade-tolerant than timothy. Makes a leafy palatable hay that is preferred for alpacas and horses.

8088 ***B**: 2# for $29.75* ***C**: 10# for $120.00* ***D**: 25# for $248.00*

Pasture Mix - Organic 30% perennial rye, 35% endophyte-free tall fescue, 15% orchard grass, 10% timothy, 10% Rivendell white clover (pre-inoculated). **Perennial pasture** mix well-suited to Maine and other areas having our variable weather and temperatures. Provides season-long regrowth and good grazing. Plant at 40–50#/acre, 1#/1000 sq ft. ②

8094 ***B**: 2# for $26.50* ***C**: 10# for $115.00* ***D**: 45# for $360.00*

Peas, Field - Organic *Pisum sativum* var. *arvense* Annual legume. Up to 40". Also called **Forage Peas**. Moderately frost tolerant. Likes cool moist conditions. Will grow in most soil types but prefers well-drained loams. It has come to our attention that some customers are purchasing our field peas for pea-shoot production: please check our website for info on our current lot and whether it's suitable for shoots. Raw seed: use with **8155** Exceed® Superior Legume Inoculant or **8161** Field Pea/Vetch Inoculant. For cover crop, seed at 100–200#/acre, 5#/1000 sq ft. For forage, seed early in the season, alone at 200#/acre, 5#/1000 sq ft, or 100#/acre, 2#/1000 sq ft, with oats or barley at 50#/acre, 1#/1000 sq ft. ①

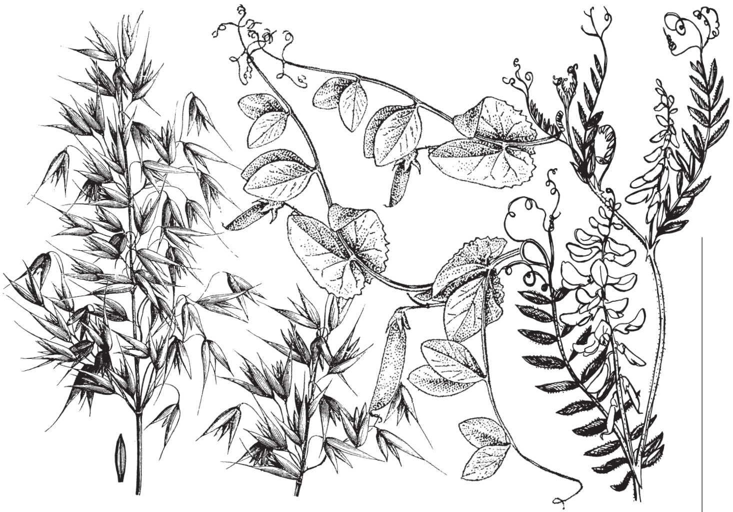
As cover crop: A weed-smothering workhorse soil builder. Sow alone or with a nurse crop such as oats to help it stand.

As annual forage: Peas have excellent palatability and are highly digestible. Hanne Tierney of Cornerstone Farm conducted a 2009 SARE trial in which she reduced by 50% the grain fed out to hogs pastured on a barley and field-pea mix; the pastured hogs achieved an average slaughter weight not significantly different from the control group, although there was greater variation. Some potential for dry hay as well, though filled pods can be difficult to dry down. Peas may be seeded alone, but a companion crop of small grains will help to prevent lodging.

8097 ***B**: 2# for $6.50* ***C**: 10# for $24.50* ***D**: 45# for $86.50*

Using Cover Crops to Solve Problems in the Garden

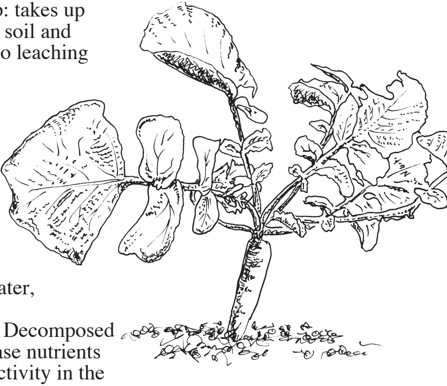
Problem	Easy Cover-Crop Solutions
Poor soil drainage or hardpan	Deep-rooted Radish bores drainage holes into the soil with its powerful taproot.
Low organic matter	BMR Sorghum/Sudangrass produces more biomass than any other cover crop. It is frost-sensitive. Choose cold-tolerant Forage Oats for fall or spring planting.
Low soil nitrogen	Alfalfa and Yellow Sweet Clover are the most capable fixers of atmospheric nitrogen among all the legumes. Be sure to inoculate your seed!
High weed population	Winter Rye has vigorous growth and is a strong allelopath on small weed seeds. Buckwheat has vigorous seedling growth and competes well against warm-season weeds.
Soil erosion	Annual Ryegrass quickly forms a dense root mat that holds soil in place.
Poor pollination	Dutch White Clover can bloom among your crops all season to feed and attract pollinators.
Soil-borne fungal disease	Mustard residues release isothiocyanates, which may inhibit the growth of fusarium and other soil-borne fungi.
Root-knot nematodes	Sunn Hemp roots exude natural nematicides that can significantly reduce nematode populations in the short term.
Nutrient leaching	Deep-rooted Radish and Camelina scavenge unused soluble nitrogen from deep in the soil and hold it for later crops.



PVO Soil-Building Seed Mix - Organic 71% field peas, 15% common oats, 14% hairy vetch. A superior soil-building **cover crop** seed mix. For springtime planting: allow for 60–90 days of growth. The oats come up first and are pulled down by the peas, which are eventually pulled down by the smothering vetch. Weeds don't stand a chance in that jungle. 4" mat of vegetation should be disked or mowed and incorporated in autumn. Seed at 150–200#/acre, 5#/1000 sq ft. ①②

***8103 B**: 2# for $8.00 **C**: 10# for $32.00 **D**: 45# for $122.00*

Radish, Deep-rooted Daikon *Raphanus sativus* var. *niger* Annual broadleaf. Roots up to 21" long (with leafy tops around a foot tall). Moderately frost resistant. Join the D. D. Radish Revolution! A **cover crop** daikon radish bred for improved taproot performance. Also known as **oilseed radish** or **forage radish**. Penetrates hardpan and loosens soil down to 30" or beyond. Excellent scavenger crop: takes up available nutrients in the soil and prevents nutrient losses to leaching or runoff. Germinates quickly. Suppresses weeds if planted thickly. Winterkill occurs when several consecutive nights are in the low 20s. Leave plants in the ground all winter and into spring: roots decompose leaving large holes that fill with rainwater, eliminating runoff and improving soil drainage. Decomposed root and leaf matter release nutrients and increase microbial activity in the soil, contributing to increased yields in crops that follow. Mainers should plant in late August or early September for maximum benefit. Can be planted as late as October in mid-Atlantic states. Do not plant in spring: the plants will bolt before they form taproots. Drill at 5–10#/acre or broadcast at 10–15#/acre, 1/2#/1000 sq ft. ② *Note: We cannot ship this to the Willamette Valley in Oregon.*



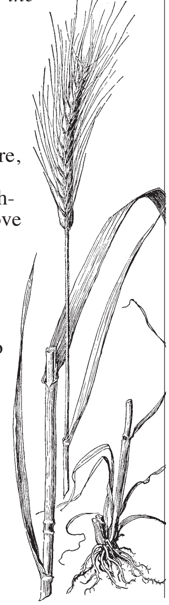
***8105 A**: 0.5# (0#) for $7.50 **B**: 2# for $15.00*
***C**: 10# for $60.00 **E**: 50# for $200.00*

Rye, Winter - Organic *Secale cereale* Winter annual grass. Up to 5'. Extremely frost hardy, adaptable and competitive. For cover crop, seed at 100–200#/acre, 3–5#/1000 sq ft. For grain, seed in late September or early October at 100–125#/acre, 3#/1000 sq ft. ①

As cover crop: The most popular winter cover in the Northeast. Deep extensive roots help prevent compaction and improve soil tilth. Turn under early in spring before it gets out of hand. Vigorous growth is best controlled with mechanical tillage: if you are working with hand tools, we recommend oats for fall planting instead. Decomposed rye residue exudes allelopathic compounds that inhibit weed growth; may also inhibit germination and growth of subsequent crops, so incorporate rye into soil 3–4 weeks before direct-seeding of small-seeded crops. Large-seeded crops and transplants are less affected.

As food grain: Threshes easily and produces a flour suitable for blending with wheat in breads. Matures earlier than winter wheat. Susceptible to ergot contamination, so exercise caution and have grain tested before consuming: hallucinations from ergot poisoning are believed to have resulted in the Salem witch trials.

***8109 B**: 2# for $6.25*
***C**: 10# for $23.00*
***D**: 45# for $59.25*



Hairy Vetch/Winter Rye Mix - Organic 78% rye and 22% vetch. Superb **cover crop** mix for fall planting where mechanical tillage is available in the spring. Excellent choice for a field that will not be planted the following spring. Mow after flowering to kill the plants, then incorporate by tilling, and allow 3–4 weeks for the rye to decompose before replanting. Produces abundant biomass, adds nitrogen to the soil and suppresses weeds. The rye acts as a nurse crop for the vetch, protecting it from frost damage and providing support for the vines, making mowing much easier. Growers working with hand tools should consider a blend of oats and peas instead. Seed at 80–100#/acre, 2–3#/1000 sq ft. ①②

***8112 B**: 2# for $8.00*
***C**: 10# for $33.75*
***D**: 45# for $115.00*

Ryegrass, Annual - Organic *Lolium multiflorum* Annual or winter annual grass. Up to 4'. Extremely frost hardy. Widely adaptable to a variety of soils and to all but the hottest climates. Annual rye will establish quickly in cool wet weather, providing a dense **cover crop** and outcompeting weeds. Seed heavily for economical erosion control; seed thinly as a good nurse crop when establishing perennial stands for pasture or lawn. Dense fibrous root systems withstand temporary flooding and are effective at holding soil and improving tilth. Should be kept mowed if you wish to prevent reseeding. Does not reliably winterkill. A good choice for a first cover crop when converting forest land to cropland; it isn't picky about where it establishes, and it effectively "retrains" the soil's microbial population to foster annual plants instead of woody growth. Seed at 25–35#/acre, 1–2#/1000 sq ft. ②

***8121 B**: 2# for $11.75 **C**: 10# for $51.75 **E**: 50# for $162.50*

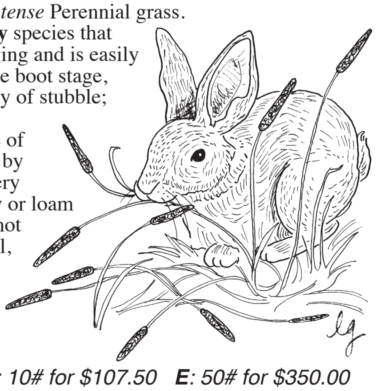
Ryegrass, Perennial - Organic *L. perenne* Short-lived perennial grass. Up to 2'. Often used in grass seed mixtures. Extremely palatable forage grass with good early spring and fall growth in the **perennial pasture**; slows in the heat of summer. Germinates quickly and grows rapidly, suppressing weeds and allowing slower-growing companions to establish themselves. Holds up under heavy traffic and has good insect and disease resistance. Seed at 30–60#/acre, 1–2#/1000 sq ft. ②

***8124 B**: 2# for $25.00*
***C**: 10# for $100.00*
***E**: 50# for $350.00*

Sunn Hemp *Crotalaria juncea* Annual legume. Up to 6'. Frost sensitive. This rock star **cover crop** builds organic matter, fixes atmospheric nitrogen, controls harmful nematodes, and still finds time to be beautiful. Grows vigorously in good conditions, but is unlikely to reach its full size potential up here in the tundra. Effectively shades out weeds. In 60 days it can produce more than 5000#/acre biomass and fix 140#/acre of nitrogen! At this stage it will have just started producing its lovely yellow flowers. Used as a fiber crop in India since prehistoric times; with enough heat, plants can grow 6' high with stems 2" thick! Some varieties are suitable for livestock forage, but our seed comes to us "variety not stated" so we do not recommend it for that purpose. Not related to the other hemp and looks nothing like it, so you won't get suspicious looks from neighbors. Tolerates dry conditions. Raw seed; use with **8155** Exceed® Superior Legume Inoculant. Seed after soil reaches 60°, but before mid-August, 30–50#/acre, 1–2#/1000 sq ft. ②

***8133 A**: 0.5# (0#) for $6.50 **B**: 2# for $12.50*
***C**: 10# for $46.50 **E**: 50# for $150.00*

Timothy - Organic *Phleum pratense* Perennial grass. Up to 3'. A popular **perennial hay** species that produces good yields, resists lodging and is easily cut and cured. Harvest early, in the boot stage, to avoid stemmy hay. Leave plenty of stubble; timothy stores its energy reserves for regrowth in a corm at the base of the stem, which may be damaged by close cutting or heavy grazing. Very winter hardy. Best adapted to clay or loam soils with lots of moisture. Does not tolerate heat or drought. In the fall, seed alone or with winter wheat; in spring, seed with red clover or alfalfa. Seed at a rate of 12–15#/acre alone or 10#/acre when mixed, 1/2#/1000 sq ft. ②



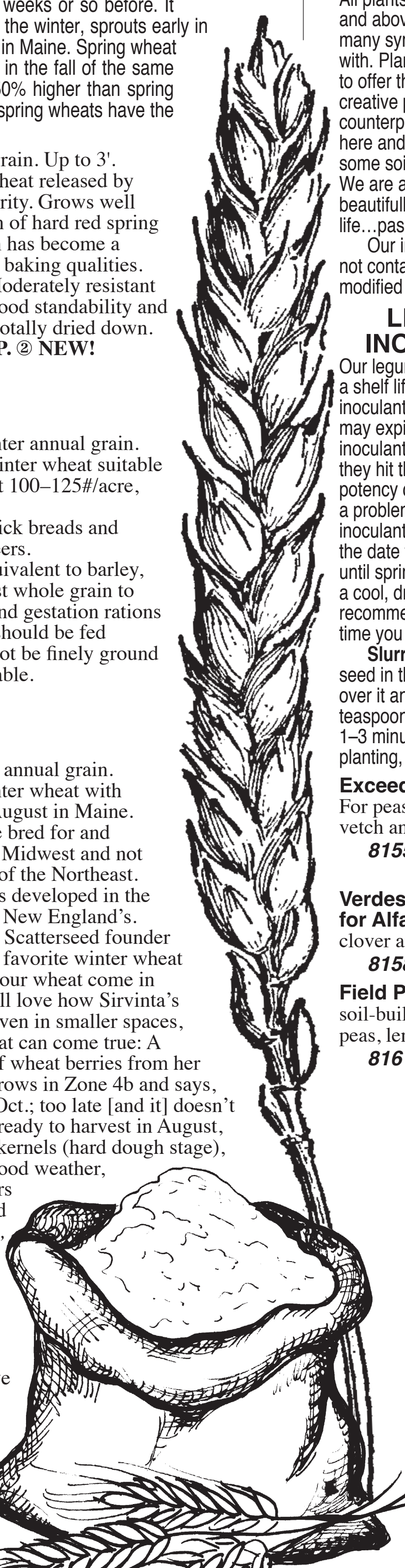
***8136 B**: 2# for $24.00 **C**: 10# for $107.50 **E**: 50# for $350.00*

Vetch, Hairy - Organic *Vicia villosa* subsp. *villosa* Annual or winter annual legume. Up to 2' high; vines up to 8' long. Moderately frost resistant. Vigorous **cover crop** generates copious amounts of organic matter. Excellent nitrogen fixation. Its vigor can create problems, especially in the home garden: the tangled vines can clog even large mowers. Later planting allows for better control. Sometimes it will overwinter in Maine, sometimes it will die back: you have to be prepared to deal with it in the spring. Use a flail mower or scythe to cut it back in fall and incorporate the stubble in the spring before the regrowth becomes unmanageable. Tolerates acidic soils and low fertility, but not poor drainage. Raw seed; use with **8161** Field Pea/Vetch Inoculant. Seed at 25–40#/acre, 1#/1000 sq ft. ①②

***8139 B**: 2# for $18.25 **C**: 10# for $75.00 **D**: 45# for $ 258.50*

WHEAT *Triticum aestivum*

Most modern wheats are broadly divided into categories by color (red or white), protein content (hard or soft), and by planting season (winter or spring). “Red” and “white” refer to the color of the kernel, which doesn’t necessarily translate into the color of the flour, although red wheats tend to have darker-colored bran and white wheats tend to have sweeter flavor. “Hard” wheat is a high-protein wheat (typically 13–15% protein) that is ideal for bread-baking; “soft” wheat is a low-protein wheat (typically 10–11% protein) that is best for tender-crumbed pastries. Winter wheat is planted in the fall, around first frost or up to 3 weeks or so before. It grows several inches in the fall, goes dormant for the winter, sprouts early in the spring and is ready for harvest by mid-August in Maine. Spring wheat is planted in early to mid-spring and is harvested in the fall of the same year. Winter wheats tend to produce yields 25–50% higher than spring wheats and compete better with weeds, but hard spring wheats have the best potential for high protein content.



Glenn Spring Wheat - Organic Annual grain. Up to 3'. Moderately frost resistant. Hard red spring wheat released by ND State U in 2005 with medium-early maturity. Grows well even outside of regions known for production of hard red spring wheat. Since entering the wheat scene, Glenn has become a favorite of bakers for its superior milling and baking qualities. High in protein with very high test weight. Moderately resistant to scab, leaf rust and stem rust. Plants have good standability and straw strength. Threshing is easier once it is totally dried down. Plant at 100–125#/acre, 3–4#/1000 sq ft. **PVP. ② NEW!**

8143 ***B**: 2# for $5.75*
***C**: 10# for $22.50*
***E**: 50# for $84.50*

Soft White Winter Wheat - Organic Winter annual grain. Up to 4'. Extremely frost hardy. Soft white winter wheat suitable for feed or pastry flour. Cold-tolerant. Seed at 100–125#/acre, 3–4#/1000 sq ft. ①

As food grain: Makes tender pastries, quick breads and pancakes. Also suitable for brewing wheat beers.

As feed grain: Protein approximately equivalent to barley, but with lower fiber content. Wheat is the best whole grain to feed chickens and an ideal base for finisher and gestation rations for hogs. Highly palatable to ruminants, but should be fed carefully to prevent acidosis. Wheat should not be finely ground before feeding: cracking or soaking is preferable.

8149 ***B**: 2# for $6.25*
***C**: 10# for $23.25*
***D**: 45# for $92.75*

Sirvinta Winter Wheat - Organic Winter annual grain. Up to 5'. Extremely frost hardy. Hard red winter wheat with medium-late maturity is ready to harvest in August in Maine. Most wheat varieties available in the U.S. are bred for and adapted to the prairie-type soils of the Upper Midwest and not as well-suited to the moist forest-based soils of the Northeast. Named after a river in Lithuania, Sirvinta was developed in the Baltics where soils and climate are more like New England’s. Fedco friend Raivo Vihman shared seed with Scatterseed founder Will Bonsall, who found the variety to be his favorite winter wheat to grow and eat. If you’re tired of watching your wheat come in lushly only to fall over when it gets tall, you’ll love how Sirvinta’s sturdy stalks stand strong—great for straw. Even in smaller spaces, your dreams of baking with homegrown wheat can come true: A customer in Saint Albans, ME, yielded 59# of wheat berries from her 10x65' plot—that’s a lot of loaves! Bonsall grows in Zone 4b and says, “I like to plant between early Sept. and mid-Oct.; too late [and it] doesn’t get established well before [winter]. Mine is ready to harvest in August, [though] I pay more attention to the stage of kernels (hard dough stage), and the straw being roughly half yellow. In good weather, stooks should be cured in 3–7 days; if showers threaten, I may throw a tarp over them.” Read more in Bonsall’s *Essential Guide to Radical, Self-Reliant Gardening* (**9819**)! Seed at 100–150#/acre, 3–4#/1000 sq ft. Seed at the heavier rate for later plantings (after Sept. 15 in Maine). We offer smaller garden-scale packets of Sirvinta seed on page 31. ①

As food grain: Flour has great flavor and texture for all-purpose use. Maine bakers have found Sirvinta to have superb qualities for bread, including long-ferment loaves.

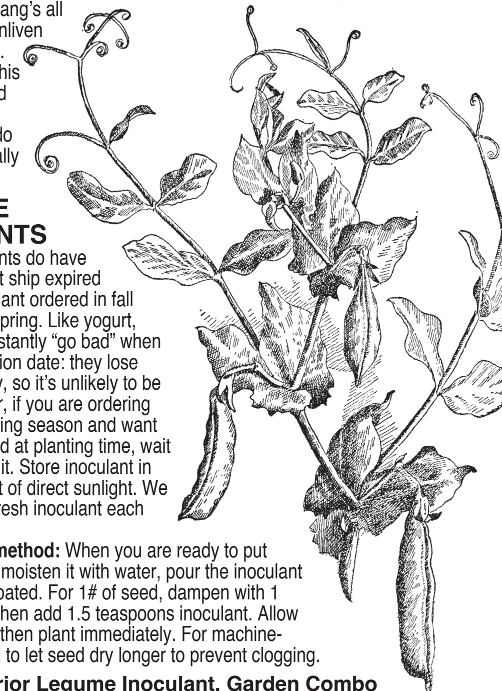
As feed grain: Protein approximately equivalent to barley but with lower fiber content. Wheat is the best whole grain to feed to chickens and an ideal base for finisher and gestation rations for hogs. Highly palatable to ruminants, but should be fed carefully to prevent acidosis. Wheat should not be finely ground before feeding: cracking or soaking is preferable.

8150 ***B**: 2# for $10.00*
***C**: 10# for $40.00*
***D**: 45# for $120.00*

INOCULANTS & PROBIOTICS

All plants thrive on beneficial relationships established with soil-dwelling organisms and above-ground allies. Science has only begun to understand and document the many symbiotic exchanges at play between plants and the life forms they collaborate with. Plants both depend on and give back to a dynamic soil biology. We're excited to offer the products listed in this section because they facilitate and enrich these creative partnerships of interconnectivity. Beneficial bacteria, fungi and their mineral counterparts—the gang’s all here and ready to enliven some soil chemistry. We are all living in this beautifully entangled life…pass it on!

Our inoculants do not contain genetically modified materials.



LEGUME INOCULANTS

Our legume inoculants do have a shelf life. We don’t ship expired inoculant, but inoculant ordered in fall may expire before spring. Like yogurt, inoculants do not instantly “go bad” when they hit their expiration date: they lose potency quite slowly, so it’s unlikely to be a problem. However, if you are ordering inoculant for the spring season and want the date to look good at planting time, wait until spring to order it. Store inoculant in a cool, dry place out of direct sunlight. We recommend using fresh inoculant each time you plant.

Slurry mixing method: When you are ready to put seed in the ground, moisten it with water, pour the inoculant over it and mix till coated. For 1# of seed, dampen with 1 teaspoon of water, then add 1.5 teaspoons inoculant. Allow 1–3 minutes to dry, then plant immediately. For machine-planting, you’ll need to let seed dry longer to prevent clogging.

Exceed® Superior Legume Inoculant, Garden Combo For peas, sweet peas, cowpeas, dry beans, peanuts, lentils, limas, vetch and sunn hemp. **OMRI**

8155 ***A**: treats 8# (0#) for $6.25*
***B**: treats 50# (0#) for $10.00*

Verdesian N-Dure Premium Non-Sterile Peat Inoculant for Alfalfa/True Clover Combination For alfalfa, sweet clover and all the *Trifolium* clovers we list. **OMRI**

8158 ***A**: treats 50# (0#) for $8.75*

Field Pea and Vetch Inoculant Use for our **8103** PVO soil-building mix and **8112** vetch/rye mix. Also treats garden peas, lentils, favas, bell beans. **MOFGA**

8161 ***A**: treats 50# (0#) for $8.50*

Legume Inoculation

Legumes such as beans, peas, clover and alfalfa are able to access (“fix”) atmospheric nitrogen because their roots host symbiotic bacteria of the genus *Rhizobium*. Different legumes require different species of rhizobia to form a successful relationship. The plant roots feed the bacteria while the bacteria take molecular nitrogen from the air and convert it to a form that the plant can use.

Legumes take up nitrogen from the soil like other plants, and in fact do so in preference to the energy-intensive process of nitrogen fixation if soil nitrogen is plentiful. If you are growing leguminous crops in nitrogen-rich soil, inoculation may produce little yield benefit. However, nitrogen fixation cannot take place without the requisite rhizobia: if you are planting legumes in poor soil or planting a leguminous cover crop to build soil nitrogen, inoculation is non-negotiable.

FEED THE SOIL AND IT WILL FEED YOU

PROBIOTICS

Humic Acids Soluble Powder A dry soluble powder with humic acid concentration of 85%. Derived from the mineral leonardite. Please see below for the manifold functions of humic acids in the soil. Best used as a foliar feed in combination with **8170** Fulvic Acid, the other soluble component of humus. Can also be applied directly to roots or in the soil before seeding or planting. This humic acid product is not compatible with solutions with pH less than 5.0, so test the pH of your solution before applying. Not corrosive to sprayers or irrigation equipment. *Caution*: Higher than recommended concentrations of humic substances in soil can be inhibitive to proper plant growth. Don't overdo it! See chart on page 136 for application rates. **MOFGA**

***8167 A**: 1# (0#) for $14.25* ***B**: 55# for $410.00*

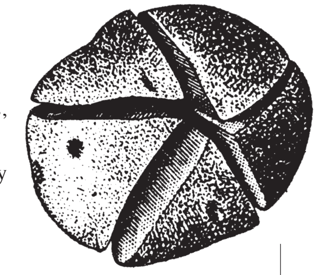
Humic acids are the wild-card molecules of soil physics and chemistry, performing complex functions by way of several different electrical and chemical reactions. Both powerful chelators and bind-all stabilizers, humic acids can prevent leaching of trace minerals into subsoil and increase uptake rate of micronutrients. They neutralize soil pH and reduce the toxicity of heavy metals. With a water-holding capacity of seven times their volume, they contribute greatly to soil structure and indirectly buffer soil temperature. They stimulate growth of foliage and roots significantly. Humic acids also have the ability to retain soil carbon for more than 1,000 years, especially in conjunction with farming practices that prevent their decomposition, such as minimal or no tillage, cover cropping and mulching. These same practices increase the microbial populations responsible for new humus formation and cycling.

Fulvic Acid Liquid Fulvic acid is a powerful antioxidant and chelator: one molecule can transport 60 or more minerals into plant cells for a more efficient and effective fertilization program. Beneficial to plants growing in low-light conditions. Consider using in combination with **8167** Humic Acids. Unlike humic acids, fulvic acids are soluble at any pH. 2% fulvic acid water-extracted from leonardite and filtered through a 200-mesh screen to eliminate clogging of drip tape and sprayers. Not corrosive to sprayers or irrigation equipment. See chart on page 136 for application rates. **MOFGA**

***8170 A**: 1 gal (10#) for $55.00*
***B**: 2.5 gal (25#) for $85.00*

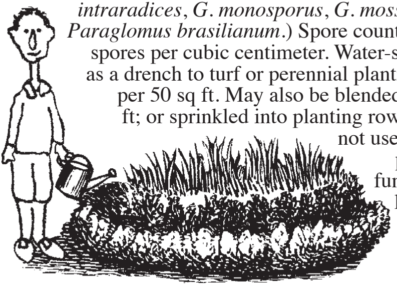
Myco Seed Treat A blend of microorganisms and mycorrhizal fungi to provide protection and growth enhancement for potatoes, corn, legumes, grasses and vegetables. Highly recommended if you cut your seed potatoes or can't wait to get your corn and beans in the ground during a chilly spring. 1–2 oz treats 100# of potato seed pieces, 4–8 oz/100# of other seed. **MOFGA**

***8173 A**: 1 oz (0#) for $8.50*
***B**: 1# (0#) for $81.50*



BioOrganics™ Micronized Endomycorrhizal Inoculant Mycorrhizae form beneficial relationships with the roots of most plant species: they boost plant growth by improving the roots' ability to take up nutrients, water and oxygen, and by improving soil structure. The world of beneficial microbial products is in a frenzy of mergers and acquisitions: this formulation comes from a smaller independent company that promises never to sell out. We can only hope! Contains a blend of 9 top types of endomycorrhizal spores (*Glomus aggregatum*, *G. etunicatum*, *G. clarum*, *G. deserticola*, *G. intraradices*, *G. monosporus*, *G. mosseae*, *Gigaspora margarita* and *Paraglomus brasilianum*.) Spore count guarantee is a minimum of 40 spores per cubic centimeter. Water-soluble formula may be applied as a drench to turf or perennial plantings. Use 1 Tbsp in 1 gal water per 50 sq ft. May also be blended into potting soils at 2 Tbsp/cu ft; or sprinkled into planting rows at a rate of 1 tsp/linear ft. Do not use with fertilizers high in soluble phosphorus or with soil-drench fungicides, either of which would kill the spores. **OMRI**

***8175 A**: 1.5# (2#) for $55.25*



MycoApply Endo/Ecto Nine species of endomycorrhizal fungi (30,000 endomycorrhizal propagules per lb), 7 species of ectomycorrhizal fungi (140 million ectomycorrhizal propagules per lb) and 5 species of beneficial bacteria. About 95% of plant species form beneficial relationships with at least one of these microorganisms. Mycorrhizal filaments expand total root mass by up to 50 times; the larger surface area increases plants' access to nutrients, water and oxygen. Compounds produced by mycorrhizae bind soil particles into clumps, which improves porosity to encourage water penetration, root growth and aeration. Add to seedbeds when sowing, work into the soil around your trees and shrubs, or incorporate into soil mix for container-grown plants to boost root growth, nutrient uptake, and the health of your plants and soils. When seeding use 1 tsp/ft; in beds mix in 2#/100 sq ft. When transplanting bare-root trees, use 1 oz/inch of stem caliper. For container planting, use 1 oz per gallon of pot capacity. For restoring fields, broadcast 40#/acre before or during planting. A-size **MOFGA**; B-size **OMRI**.

***8176 A**: 1# (0#) for $24.75* ***B**: 40# for $580.00*

Mammoth® P Active Microbials Nutrient Liberator. Invented by a team of Colorado State University PhD soil microbiologists with a passion for soil health and sustainable agriculture. They used directed microbial phenotyping to create a concentrated blend of *Pseudomonas putida*, *Comamonas testosteroni*, *Citrobacter freundii* and *Enterobacter cloacae*, which act as tiny bioreactors, constantly emitting enzymes that liberate soil-bound phosphorus and micronutrients. Cannabis growers using Mammoth P see bud yields 16% higher than in untreated plants, as well as stronger plants less susceptible to lodging. Use may be restricted to the bloom stage, but for best results use throughout the growth cycle (even during flushing). Also useful after field applications of **8250** Fertoz Rock Phosphate or **8252** Tennessee Brown Rock to speed phosphorus release. Mix at 0.6 mL/gallon water. 120 mL bottle treats 12 cannabis plants from clone to harvest; 500 mL treats 50. *This is a live product:* color changes and sediment are normal. It's a bit stinky but will help you grow more stinky, sticky buds. As they say in the distinctively scented paper-mill towns around here, "It smells like money." **OMRI**

***8180 A**: 120 mL (0#) for $59.50* ***B**: 500 mL (0#) for $155.00*

Dr. Higa's Original EM-1 Microbial Inoculant Concentrated Effective Microorganisms®. Active microbial life in the soil and on plants is a better solution than synthetic chemical fertilizers. A liquid combination of yeasts, actinomycetes and two kinds of bacteria, photosynthetic and lactic, which promotes plant health and growth and improves nutrient absorption and soil fertility. Further fermentation ("activation") of EM-1 increases the volume of microbes, but you can also just use it straight out of the bottle. The late Adam Tomash sprayed his tomatoes several times with activated EM-1 and they made it into September with no significant blight damage. Instructions for activating EM-1 can be found at fedcoseeds.com/ogs (search for "EM-1"). Our cannabis-growing friends can't do without it. **NEW!** Pint size for home gardeners and micro-orchards. **OMRI**

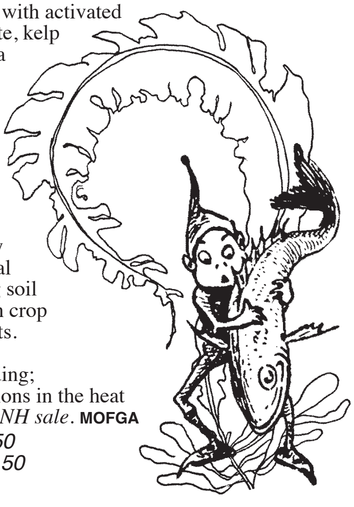
***8185 A**: pint (1#) for $38.50*
***B**: quart (3#) for $49.50*
***C**: gal (10#) for $102.00*

Recommended uses for "activated" EM-1:

- As a component of the Holistic Orchard Spray (see p. 144).
- As a drench for transplants: make a 4% solution (1 part activated EM-1 to 24 parts water) and apply it to the furrow or hole.
- As a foliar spray: use $1^1/_2$–3 gal/acre or $4^1/_2$–9 oz/1000 sq ft, mixed with enough water to provide coverage (about 50 gal of solution covers an acre; 1 gal solution covers 1000 sq ft.)
- As a soil treatment: apply 40 gal/acre over the course of a year.
- To break down crop residue: spray 1–5 gal/acre on fields after harvest.
- Add to compost to speed up the breakdown of plant material.

Monster Plant Mojo (4-4-0.5) We were devastated by the demise of well-loved MPM (Microbial Plant Mix) foliar fertilizer, the proprietary blend of a manufacturer who's closed shop. As a close substitute, we recommend applying this product in conjunction with activated **8185** EM-1. Contains fish hydrolysate, kelp extract, humic and fulvic acids, and a dash of chilean nitrate to boost the nitrogen levels for rapid vegetative growth. Chilean nitrate has a shady reputation (because it is mined and high in soluble salts), but it sure gets the job done. Pending additional rule-making, certified organic operators using Chilean nitrate must demonstrate they're using it in a way that maintains or improves the natural resources of the operation (including soil and water quality) and complies with crop nutrient and soil fertility requirements. Dilute 2–4 oz per gal of water for fertigation, or 2 oz/gal for foliar feeding; apply monthly. Avoid foliar applications in the heat of the day. Do not store dilution. *No NH sale*. **MOFGA**

***8189 A**: 1 gal (10#) for $33.50*
***B**: 5 gal (50#) for $118.50*



SOIL AMENDMENTS & FERTILIZERS

Thriving sustainable agriculture is built on the ground of healthy soil. In fact, organic certification requires a soil management plan. Do a soil test to determine your soil's needs before embarking on a program of soil improvement. Check with your local Cooperative Extension for testing in your area, or consider our testing and recommendation service listed below.

Soil amendments used with a program of crop rotation, composting and cover cropping can enhance fertility, improve soil tilth, promote disease resistance, and support beneficial soil microorganisms. Application rates vary depending on soil type and results of soil tests.

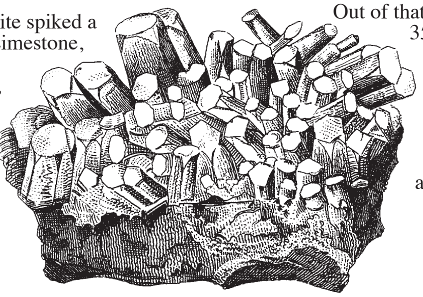
Fertilizers provide nitrogen and other nutrients in a form that is readily available to plants. Organic fertilizers can provide both an immediate boost and additional long-term fertility, feeding both the plants and the organisms that maintain soil health. We also offer soil amendments that have limited available plant nutrients but help to remineralize the soil, improve soil structure, or provide a long-term slow-release source of plant nutrients. Foliar sprays get nutrients directly to the leaves and can increase resistance to disease and to insect infestation.

Analyses provided here are those provided by the manufacturers, or, if none are available, from a Maine state lab test performed on our most recent lot: there is some variability in the nutritional analysis of natural fertilizers, so view these numbers as guides, not gospel. Fertilizers should be used as a supplement to, not a replacement for, the nutrients provided by healthy soil. Sustainability requires developing a long-term plan of cover cropping, green manuring and composting.

CALCIUM SOURCES

Aragonite (33% calcium as $CaCO_3$) When the price of aragonite spiked a few years ago, we tried to steer growers toward **8198** Calcitic Limestone, but they were having none of it. The internet forums said to use calcium carbonate from oyster shells, not from pulverized rock, so oyster shells they must have! Aragonite is even lower than Calcitic lime in magnesium, so it's the ideal choice for soils with excessive magnesium. Mined from the deposits that create the white sand beaches of the Bahamas—more expensive than calcitic lime, but less expensive than a tropical vacation. Feed quality. *No NH sale on A-size only.* **MOFGA**

8195 ***A**: 5# for $8.75*
***B**: 50# for $30.25*
***C**: pallet 40 bags (2000#) for $980.00*



Pro Pelleted Calcitic Limestone Pro-Select Prill (87% $CaCO_3$, 7% $MgCO_3$). Cal Carb Equivalent 95.8%. The most common and most frequently used soil conditioner, Calcitic is the fancy name of the product we used to call **Hi-Cal lime**. It's recommended for soils with excess magnesium: contains just $^{1}/_{6}$ the amount of magnesium carbonate as dolomitic lime. Aragonite and Calcitic are both calcium carbonate, just with a different crystalline structure and from different sources: Calcitic is mined rock, while aragonite is derived from mollusk shells. Calcitic contains marginally more magnesium than aragonite. Prilled with 2% sodium salt lignin, an NOP-allowed synthetic, as a binding agent. A-size **MOFGA**; B/C sizes **OMRI**

8198 ***A**: 5# for $6.75*
***B**: 50# for $16.25*
***C**: pallet 40 bags (2000#) for $535.00*

Pro Pelleted Dolomitic Limestone Pro-Select Prill (57.7% $CaCO_3$, 33% $MgCO_3$). Cal Carb Equivalent 96.9%. The least expensive liming agent. Use to sweeten soil (raise pH) and provide calcium where excess magnesium is not a problem. A-size **MOFGA**; B/C sizes **OMRI**

8201 ***A**: 5# for $6.50*
***B**: 50# for $12.25*
***C**: pallet 40 bags (2000#) for $400.00*

Understanding Calcium and pH Gardeners tend to worry first about the N-P-K levels of their soil, neglecting the soil's calcium. Without adequate calcium, all the fertilizer in the world will do little good. Calcium benefits soil and plants by improving the soil's physical structure, raising the pH of the soil and directly contributing to the plants' nutritional needs.

Soil Structure: Calcium increases soil porosity, which means more oxygen in the root zone and better water penetration.

Effects on pH: When calcium carbonate (lime) is applied to acidic soil, it increases the availability of many important plant nutrients.

Plant Nutrition: Calcium helps plants build strong cell walls, for bigger healthier plants with better disease resistance. It also helps plants metabolize other nutrients and cope with heat stress. Fruiting plants deficient in calcium may suffer blossom end rot or other quality problems.

How much lime should you apply? Don't even try to answer this question without a professional soil test! The quantity will depend not only on the current pH and calcium levels of your soil, but also on your soil's cation exchange capacity (CEC) and perhaps on what crops you plan to grow. Even on very acidic soils, most experts recommend that applications not exceed 3 tons per acre per year (about 140#/1000 sq ft).

When and how should you apply lime? Liming should coincide with a tillage event to incorporate it into the root zone. Applying in the fall gives the lime more time and moisture to react before the growing season. The good news is liming is for the long haul: you typically need to apply lime only once every 5–10 years.

Gypsum, pelletized (86% $CaSO_4$ $2H_2O$, 21% Ca, 16% S) Gypsum is a good source of calcium when the pH is already at a desired level. The sulfur in gypsum reacts with water to form a weak sulfuric acid solution that frees the calcium in the soil. Prilled with 2% lignosulfates, an NOP-allowed binding agent. *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

8204 ***A**: 5# for $9.00*
***B**: 40# for $24.00*
***C**: pallet 50 bags (2000#) for $800.00*

Wollastonite (48% CaO and 52% SiO_2). Cal Carb Equivalent 76.0%. Soluble-grade and at least 95% pure (may contain trace amounts of iron, manganese and magnesium). Silicon is not traditionally considered a limiting cofactor for plant growth, but researchers are finding that despite ample amounts of silicon in most soils, plants supplemented with silicon often yield better. Silicon strengthens cell walls, which reduces lodging and improves resistance to insects and disease; stimulates immune response pathways (possibly increasing production of resins and terpenes); and reduces transpiration (improving drought resistance). May be applied as a foliar spray to build resistance to powdery mildew; for yield benefits, incorporate into the soil. Particularly recommended for cannabis, orchard crops, cucurbits, sweet corn, grains and forage crops. Customer Norman B. of West Baldwin, ME, credits wollastonite for his exceptional potato crop in 2019: "I bought a 50 lb bag of wollastonite and sprinkled it into the rows as I went along and the Green Mountains, which have a reputation for low yield, did commendably. Out of that small bag of seed, I filled a five-gallon pail, over 35 lb, and that was after discarding some that I had damaged during hilling. My uncle stated that he had never seen so many large Green Mountains as well. I used a lot of composted horse manure, but I do every year. The only thing different was the wollastonite." Most soil tests do not offer recommended application rates for silicon; one approach is to use wollastonite to correct your soil pH. Dusty! Wear a mask when handling. **MOFGA**

8207 ***A**: 5# for $10.50*
***B**: 50# for $44.00*
***C**: pallet 40 bags (2000#) for $1440.00*

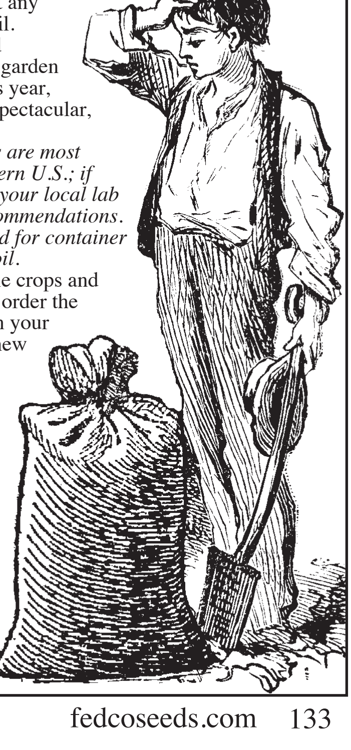
Soil Testing & Organic Fertilizer Recommendation Service for Garden, Farm and Orchard

Don't guess—test! Applying fertilizers and soil amendments without the guidance of a professional soil test is like driving downtown with your eyes shut. Applying too much of one nutrient can tie up others and wreak havoc on your soil biology. But even with test results in hand, which fertilizer do you choose and how much do you apply? Fedco to the rescue! We'll send you a soil test kit and sampling instructions, plus a box to return your soil sample and test form to the Maine State Soil Lab. You'll learn your soil pH, organic matter percentage, phosphorus, potassium, magnesium, calcium, sulfur, boron, copper, manganese, zinc, and available nitrogen, plus we'll offer **customized recommendations** for how to correct any deficiencies or imbalances in your soil. Customer Jake S. told us, "I followed [your] instructions in the spring. The garden thrived, I actually had full carrots this year, the garlic was huge and the spinach spectacular, all best-evers."

Please note that the lab's methods are most appropriate for soils in the northeastern U.S.; if you live elsewhere, please work with your local lab and consult them for amendment recommendations. Also, this kind of test is not well suited for container mixes; it's meant for in-the-ground soil.

Order **8194-A** for annual vegetable crops and **8194-B** for fruit tree orchards. If you order the orchard version, please let us know in your order notes if you are establishing a new orchard, or if your established trees are fruiting yet. For best results, take samples during the growing season while the soil is warm. Please be patient! We are at the mercy of how busy the soil lab is at any given time. You will need to spend about $10 at the Post Office to ship the sample(s) to the lab. Each kit comes with one USPS flat-rate box, but two samples can fit into one box.

8194 ***A**: for annual vegetable crops (0#) for $56.50*
***B**: for orchards (0#) for $56.50*



MORE MINERALS

AZOMITE® Named for its **A**-to-**Z** **o**f **M**inerals **i**ncluding **T**race **E**lements; contains over 67 minerals beneficial to plants and animals. Broadcast at 300–600# an acre, approximately 1–2#/100 sq ft. Mix into potting soil at a rate of 7–10# per cubic yard, or incorporate 50–100# per ton of compost, preferably at the beginning of the compost cycle.

We offer two grades:

Granulated Natural Trace Minerals (0-0-0.2) These small Azomite granules have almost zero dust and are easy to use with a broadcast spreader. Also can be used in potting soil and compost. For slow-release longer-lasting applications. For quick-release and foliar-feed, use Field Grade Azomite. *No NH sale on A-size only.* A-size **MOFGA**; B/C sizes **OMRI** **BACK!**

8213 ***A****: 4# for $7.00*
B*: 44# for $30.25*
C*: pallet 50 bags (2200#) for $1230.00*

Field Grade Natural Trace Minerals (0-0-0.2, 1.8% Ca) A mix of particle sizes from ⅛" to powder. Lots of powder, but still slightly less dusty than Micronized Azomite (which we used to carry). *No NH sale on A-size only.* A-size **MOFGA**; B/C sizes **OMRI**

8214 ***A****: 4# for $9.50*
B*: 44# for $32.25*
C*: pallet 50 bags (2200#) for $1345.00*

20 Mule Team Borax Solubor (Sodium Tetraborate, 20.5% B) Soluble borate for fluid fertilizers and nutrient sprays. Boron is essential for all stages of tree growth and fruit set. Alfalfa, clover, brassicas, carrots, celery, corn, lettuce, onions, beets, tomatoes, strawberries, and tree fruits are particularly sensitive to boron deficiency. May be used in certified organic settings only to correct a documented boron deficiency. Excessive boron is toxic to plants. Dry flowable powder, mixes easily into spray solutions. Or, mix into a larger quantity of fertilizer for ground applications. A-size **MOFGA**; B-size **OMRI**

8219 ***A****: 5# for $35.25* ***B****: 50# for $225.00*

BrixBlend Basalt (49.3% SiO_2, 13.3% Al_2O_3, 9.2% CaO, 5.7%, MgO, plus trace minerals) A paramagnetic stone powder from the Pioneer Valley of Massachusetts for remineralizing and enhancing the general foundational fertility of the soil. Latest magnetic susceptibility reading is 2400 cgs units. Till in 1–10 tons/acre, 50–500#/1000 sq ft or broadcast at 1–5 tons/acre, 50–250#/1000 sq ft. For compost, add 20–25#/cubic yard of raw material. Use up to 5% by volume in potting mixes. **Nat'l List**

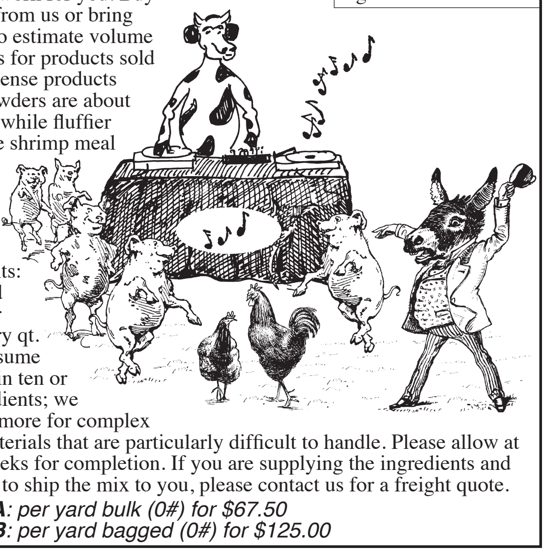
8222 ***A****: 5# for $6.50*
B*: 45# for $42.75*
C*: pallet 40 bags (1800#) for $1020.00*

Monterey Epsom Salts (9.8% water-soluble Mg, 12.9% S) Magnesium is a building block of chlorophyll and therefore essential to efficient photosynthesis. In magnesium-deficient soils, or in conditions that inhibit magnesium availability (low pH, low temperatures, dry soils, or soils with excess potassium or ammonium), supplementing with magnesium may boost yields significantly. May be applied to the soil or as a foliar spray. A favorite of rose fanatics and tomatoheads. Organic regulations require documentation of deficiency, preferably by soil test or tissue sampling, prior to application. **OMRI**

8228 ***A****: 4# for $19.00*

Custom Mixing If you're tired of ineffectively mixing fertilizers or potting soil ingredients together in a wheelbarrow or tractor bucket, let us do the dirty work for you. Buy ingredients from us or bring your own. To estimate volume requirements for products sold by weight: dense products like rock powders are about 1 cu yd/ton, while fluffier products like shrimp meal are about 2 cu yds/ton. To convert other volume measurements: A cubic yard is 27 cu ft or about 700 dry qt. Our rates assume mixes contain ten or fewer ingredients; we may charge more for complex mixes or materials that are particularly difficult to handle. Please allow at least two weeks for completion. If you are supplying the ingredients and you want us to ship the mix to you, please contact us for a freight quote.

Questions about
custom mixing?
Contact us at:
ogs@fedcoseeds.com



8193 ***A****: per yard bulk (0#) for $67.50*
B*: per yard bagged (0#) for $125.00*

Granite Meal Contains about 5% potassium in very slow-release form. Plants need potassium for sugar and starch production. Granite meal can be added to the soil in large amounts without altering the pH. Greatly enhances soil structure and promotes healthier plants. Application rates are 2000–4000#/acre or 50–100#/1000 sq ft. **MOFGA**

8231 ***A****: 5# for $7.75*
B*: 45# for $36.25*
C*: pallet 40 bags (1800#) for $820.00*

K-Mag Granular Trio 0-0-22 (10.8% Mg, 22% S) Langbeinite is a marine deposit of potassium sulfate and magnesium sulfate in soluble form. A good source of immediate potassium for depleted soil and of magnesium where calcium is abundant. Alliums like its sulfur and potatoes like its quick boost of potassium. If you are looking for an allowed Sul-Po-Mag, this is it. A-size **MOFGA**; B/C sizes **OMRI**

8237 ***A****: 5# for $13.00*
B*: 45# for $61.00*
C*: pallet 40 bags (1800#) for $1835.00*

Hum-Amend Max Max out your soil health! This powerful soil-restoration amendment is designed to raise soil's cation exchange capacity while adding high levels of carbon and humus. Combines a soluble humate complex (containing fulvic and humic acids) with a soluble seaweed extract (a biostimulant and good source of trace minerals) on a base of raw leonardite and raw kelp meal for long-term effects. Humic and fulvic acids support plant health and increase yields by facilitating plants' uptake of nutrients and water. Granular texture with plenty of fines to provide a balanced release. Minimum 85% humic acids, compared to Menefee Humate, which was 50%. Contains no animal manures—vegan-friendly and smells nice. For vegetables above ground, apply at a rate of 10#/1000 sq ft or 150#/acre in conjunction with your fertility program. For root crops, apply at a rate of 5#/1000 sq ft in the row at planting. For potting soil, incorporate 15–25#/cubic yard. **MOFGA**

8240 ***A****: 5# for $17.75* ***B****: 50# for $95.00*

Micronutrients Liquid Minerals While trace mineral products like **8213**-**8214** Azomite help maintain background levels of a wide variety of elements, they don't have the juice to correct deficiencies of specific micronutrients. Note that on certified-organic operations, these products may be applied only if there is a documented deficiency. Apply 1–4 qt per acre, or ¾–3 oz/1000 sq ft, diluted 100:1 (1 pt in 12½ gal water, ⅜ oz in 4⅔ cups water). Repeat after 1–3 weeks if necessary. **OMRI**

Calcium helps strengthen plants' cell walls, improving crop quality, disease resistance and storage capacity. Calcium uptake may be reduced by cool or humid conditions. Midseason foliar applications of calcium can help prevent problems like blossom end rot and bitter pit. Contains 5% calcium chelated with an amino acid complex.

8241 ***A****: liquid calcium, pint (3#) for $15.00*

Copper is necessary for efficient photosynthesis and respiration and affects the sugar content and flavor of produce. Copper availability may be limited by alkaline soils, high organic matter levels, saturated soils, or excessive zinc, nitrogen or phosphorus. Contains 4% chelated copper derived from copper sulfate.

8242 ***A****: liquid copper, pint (3#) for $15.00*

Iron is essential for chlorophyll development and function, and is also involved in nitrogen fixation by legumes. Iron availability may be limited by alkaline soils, low organic matter levels, saturated soils, excessive phosphorus, or deficient zinc. Contains 5% chelated iron derived from ferrous sulfate.

8243 ***A****: liquid iron, pint (3#) for $15.00*

Manganese helps plants to synthesize chlorophyll and is used in electron transport during photosynthesis. Manganese availability may be limited by alkaline soils, high organic matter, excessive iron, or deficient sulfur. Contains 1% nitrogen derived from hydrolyzed vegetable protein and 5% chelated manganese derived from manganese sulfate.

8244 ***A****: liquid manganese, pint (3#) for $15.00*

Zinc is a component of auxin, an essential growth hormone, and is also necessary for proper root development. Adequate zinc improves cold tolerance. Zinc availability may be limited by excessive phosphorus or copper, low organic matter, or magnesium deficiency. Contains 7% zinc derived from zinc sulfate.

8245 ***A****: liquid zinc, pint (3#) for $15.00*

(Mostly) No Fertilizers Shipped to New Hampshire

The state of New Hampshire demands a $75 annual registration fee for every fertilizer we label, even if that fertilizer is manufactured elsewhere. We offer a wide variety of products to customers all over the country: we don't sell much of any one product in any one place. New Hampshire's fees would eat up more than a third of our gross margin on our fertilizer sales there, which isn't cost-effective. We made the difficult decision to stop fertilizer sales to NH until the regulatory environment is friendlier.

A few of our fertilizers are registered by the manufacturer in NH—the rest are unavailable to our NH customers as indicated by the *No NH sale* note in the product description.

You can always come on over to Maine and shop in person at our warehouse. Also, call your your local legislator or the NH Department of Agriculture at (603) 271-3551 to voice your displeasure.

Allganic™ Potassium Sulfate of Potash Water Soluble (0-0-52) The most economical source of available potassium. Moderate to fast release. If your soil has sufficient magnesium, this is the potassium fertilizer for you! UMaine soil scientist Bruce Hoskins says, "We recommend fine granular Sulfate of Potash for high tunnels. It will dissolve and release more completely, when tilled in, than the coarse granular material. This is a particular problem in tunnels due to dry zones between drip lines. If the granules don't get wet, they will not dissolve and become available to the crop. Fine granular Sulfate of Potash can also be more easily dissolved for fertigating through the drip during the season." Test your soil to determine the precise application rate you need. If your soil has a potassium deficiency, you will likely need to apply 200–500#/acre, or 5–10#/1000 sq ft. A-size **MOFGA**; B/C sizes **OMRI**

8246 ***A**: 5# for $18.75*
***B**: 50# for $102.50*
***C**: pallet 40 bags (2000#) for $3645.00*

Tiger Organic 90CR Sulfur Agricultural Sulfur. 90% elemental sulfur, 10% bentonite clay. Use to lower soil pH (make it more acidic). Often helpful for both lowbush and highbush blueberries, and for potatoes. Lowering pH of gravel paths will help control weeds. Not fine enough to be spread as fungicide; comes in small pastilles like yellow button candy. (Fungicidal sulfur is **8684**-**8690**.) Even in soils with correct pH, small amounts of sulfur are necessary for chlorophyll formation, the metabolism of nitrogen, and the synthesis of oils. Nutritional deficiency of sulfur is most likely on sandy soils low in organic matter. Application rates for pH correction are typically 500–1500#/acre (depending on current pH, target pH and soil type), with no more than 1000#/acre applied at once. To address nutritional deficiency of sulfur, apply 10–30#/acre, thoroughly blended into a larger quantity of fertilizer for even application. Wait to apply until soil temp is at least 60°. Sulfur-oxidizing bacteria are inactive below 55°—don't trust soil test results showing "sulfur deficiency" from samples taken early or late in the season. *No NH sale on A-size only*. A-size **MOFGA**; B/C sizes **OMRI**

8249 ***A**: 5# for $9.75*
***B**: 50# for $39.00*
***C**: pallet 40 bags (2000#) for $1280.00*

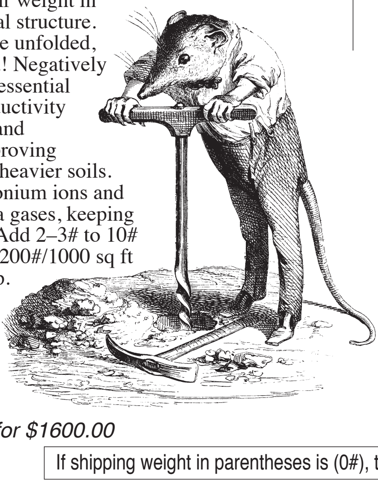
Fertoz Organic Granulated Rock Phosphate Fertilizer (0-7-0, up to 20% total P, plus at least 30% Ca and 10% SiO_2). Natural phosphorus source from mines in British Columbia, Montana, and Mexico. Apply with **8249** Sulfur or **8240** Hum-Amend Max to improve solubility. Adequate phosphorus results in more vigorous early root formation, better flower and seed production, better growth in cold temperatures, and better water use efficiency. Typical deficiency symptoms are stunted growth, blue-green to purple coloration of the leaves, delayed maturity, and reduced production of flowers and seeds. This product is a better value than **Calphos**, which we carried for years: the price per ton is just slightly higher but it offers twice the level of soluble P. It is best to apply phosphate according to a soil test; if you have not tested your soil but have reason to believe phosphorus is low, a suggested spreading rate could be 50#/1000 sq ft. *No NH sale*. A-size **MOFGA**, B/C sizes **OMRI**

8250 ***A**: 5# for $10.25*
***B**: 50# for $48.00*
***C**: pallet 40 bags (2000#) for $1570.00*

Tennessee Brown Rock Phosphate (0-3-0, 21–25% total P_2O_5, 40% CaO) The consistency of rich soil. Comes from the washing piles left behind when high-grade ore was extracted to produce superphosphate in the early 20th c. When tested in several Midwestern states' labs, concentrations of available phosphate were regularly over 6%. Lowest concentration of heavy metals of any phosphate source. Recommended by soil gurus Phil Callahan and Mark Fulford. It is best to apply phosphate according to a soil test; if you have not tested your soil but have reason to believe phosphorus is low, a suggested spreading rate could be 75#/1000 sq ft. *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

8252 ***A**: 5# for $7.75*
***B**: 45# for $25.00*
***C**: pallet 40 bags (1800#) for $840.00*

ZeoMax Garden Aid Zeolites are aluminosilicate lattices, derived from volcanic ash, that hold up to 55% of their weight in water in the small cavities of their crystal structure. If one tablespoon of zeolite crystals were unfolded, they would cover an entire football field! Negatively charged, the lattices hold the cations of essential elements. Zeolites can improve the productivity of any texture of soil, improving water and mineral retention in sandy soils and improving aeration and minimizing compaction in heavier soils. Added to compost, zeolites retain ammonium ions and prevent their transformation to ammonia gases, keeping the nitrogen from escaping into the air. Add 2–3# to 10# of potting soil. Apply to the soil at 150–200#/1000 sq ft or 1–2 tons/acre and incorporate 6" deep. Water thoroughly after application so zeolites will adsorb the moisture, holding it in a thin film on their surfaces until needed. **MOFGA**



8255 ***A**: 5# for $13.25*
***B**: 50# for $66.00*
***C**: pallet 40 bags (2000#)for $1600.00*

FERTILIZER BROADCASTER
ALFALFA MEAL
KELP MEAL
Soybean Meal

Fertilizers

PLANT-BASED FERTILIZERS

Alfalfa Meal - Organic (2.8-0.5-3.6) Popular among veganic gardeners, and hands-down the best-smelling fertilizer out there. Gives plants a noticeable boost and feeds soil organisms. Blended with a trace quantity of certified organic soybean oil to reduce clumping. Apply at 800#/acre or 20–30#/1000 sq ft. *No NH sale*. **MOFGA**

8260 ***A**: 5# for $10.75*
***B**: 50# for $46.75*
***C**: pallet 40 bags (2000#) for $1600.00*

Kelp Meal - Organic Dried and ground seaweed contains trace minerals, enzymes and amino acids, plus a small dose of N-P-K. Contains sugars that chelate micronutrients, making them more available to plants. A natural source of hormones that stimulate root growth. Mix into the soil at the rate of 300–600#/acre or 7–14#/1000 sq ft. *No NH sale*. **MOFGA**

8263 ***A**: 5# for $20.75*
***B**: 50# for $117.00*
***C**: pallet 40 bags (2000#) for $4180.00*

Kelp-It Soluble Powder Dehydrated Seaweed Extract Highly concentrated powder makes an excellent foliar spray containing growth hormones, trace minerals, enzymes and carbohydrates. One package makes 1 gallon of liquid seaweed concentrate. Add the powder and $^{1}/_{2}$ tsp of a mild biodegradable soap or non-ionic surfactant (as a wetting agent) to 1 gallon of water, agitating to dissolve the powder. Use this concentrate at a rate of 1 Tbsp/gal. To make a ready-to-use solution, mix $^{1}/_{2}$ tsp soluble powder and $^{1}/_{4}$ tsp soap to 1 gal water. Reseal package; the powder readily absorbs water. *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

8266 ***A**: 10.7 oz (0#) for $23.50*
***B**: 44# for $825.00*

Kelp Liquid Concentrate (0-0-4) New formula is **twice as concentrated** as the liquid kelp we carried for years: higher price, but you need only half as much! Maine-harvested *Ascophyllum nodosum*, also known as rockweed, knotted wrack or kelp, is a source of growth-promoting and -regulating hormones. Along with the potassium content, its diverse micronutrient package enhances plant development and yield. Use when starting seeds to improve seed germination and increase root growth. Also useful as a drench to help prevent transplant shock. As a foliar feed, it will increase mineral uptake in leaves and improve photosynthesis. Can be applied to seed, root or foliage at 1 Tbsp/gal water. For an acre, use 2–4 pints of concentrate mixed with at least 50 gal water. Can be applied every 1–4 weeks throughout the growing season. Add $^{1}/_{2}$ tsp/gal **8714** ThermX™ 70 as a spreader-sticker to increase coverage and absorption. Mix with **8289** Fish Hydrolysate for a well-rounded nutrient boost! *No NH sale*. **MOFGA** **NEW FORMULA!**

8270 ***A**: pint (3#) for $12.75*
***B**: 1 gal (10#) for $84.25*
***C**: 5 gal (50#) for $307.00*

High Brix Molasses - Organic Plants and beneficial microbes have a sweet tooth, too! In addition to its sugar content, molasses is a source of important nutrients, including manganese, magnesium, copper, potassium and calcium. More and more growers are using molasses for annuals and perennials during certain growth periods (see below). Our molasses is 100% shelf stable, so it won't bubble up and swell in the bottle. The leading competitor of this product has only 72% sugar; ours is 79–80% sugar, food grade (though our warehouse isn't certified for handling food), and certified organic. **NEW!**

8271 ***A**: 1 gal (10#) for $27.00*
***B**: 5 gal (50#) for $134.50*

Give plants and animals a boost with molasses!

Application rate: foliar feed or fertigation, 1 Tbsp molasses/gallon water.

- **Cannabis/hemp:** During the vegetative phase, apply 1–2 times a week as fertigation, or every 14 days as a foliar feed; UMaine Professor John Jemison recommends it especially during flowering, fertigating 2–3 times during that period.
- **Veggies and other annuals:** For watering in newly transplanted seedlings.
- **Fruit trees:** Michael Phillips promoted molasses for use in conjunction with **8185** EM-1, so that well-fed probiotics can better outcompete fruit tree pathogens. Research in the UK indicates that molasses can reduce transplant shock in bare-root fruit trees.
- **Livestock:** Add it to animals' drinking water in cold weather for a caloric boost. Add to finely ground feeds to reduce dust. May be fed liberally, but not free-choice: restrict to 10% of the ration or less.

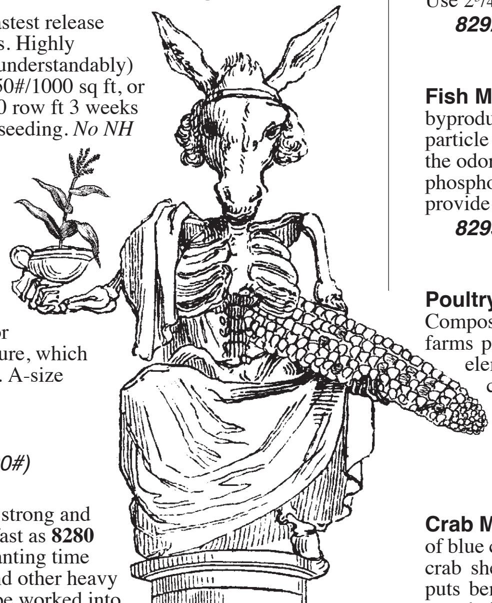
Ahimsa Organics® Neem Cake (6-1-3 avg) Pure full-strength neem cake. The residue of neem seed kernels after the oil has been pressed. Earthworm populations increase when neem cake is added to the soil. Added to the soil a few weeks before planting, neem's antifungal properties help suppress fusarium infestations. Use in combination with other soil conditioners (especially Karanja Cake, found on our website) and fertilizers at 10–15% by weight; neem and karanja can be combined for a total of 10–15%. Mix into the top 6–8" of the soil or apply as a topdressing around the base of your plants. Smells like old onion bagels. Contains growth-regulating hormones so be cautious using it in potting mix, adding no more than 1% by weight, or 0.5% neem cake plus 0.5% karanja cake. In the field, apply 180–360# per acre, or 10# per 1000 sq ft. *No NH sale*. A-size **MOFGA**, B/C sizes **OMRI**

***8272 A**: 4# for $18.00* ***B**: 44# for $110.00*

Soybean Meal (7-1.5-1 avg) High levels of nitrogen and potassium are released as the soybean meal breaks down, providing fertility over time. Add when first planting or transplanting. (For sidedressing, use fish meal or blood meal instead.) Considered the most effective and economical nitrogen fertilizer for Northeast soils. Certified non-GMO. *No NH sale*. **MOFGA**

***8275 A**: 5# for $11.50*
***B**: 45# for $55.25*
***C**: pallet 40 bags (1800#) for $1575.00*

ANIMAL-BASED FERTILIZERS



Blood Meal (13-0-0) One of the fastest release times of all organic nitrogen sources. Highly recommended for corn. The smell (understandably) freaks out deer. Till into soil at 30–50#/1000 sq ft, or apply as a sidedressing at $7\frac{1}{2}$#/1000 row ft 3 weeks after transplanting or 4 weeks after seeding. *No NH sale*. **MOFGA**

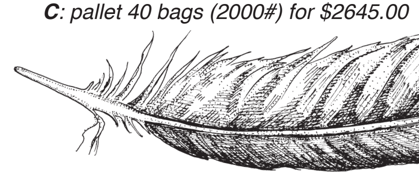
***8280 A**: 5# for $18.25*
***B**: 50# for $100.00*

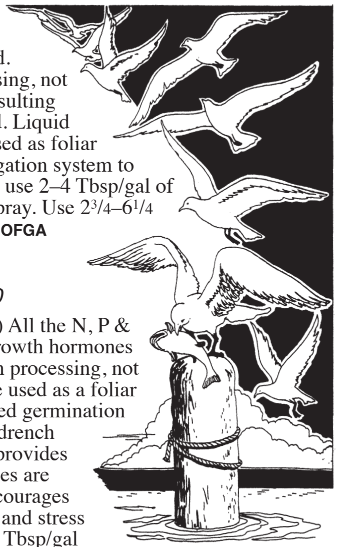
North Country Organics® Bone Char (0-16-0, 32% total P_2O_5, approx. 30% Ca) Burned bone meal provides large amounts of readily available phosphorus. The most economical source of P for deficient soils (excepting fresh manure, which is bulkier and stinkier). *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

***8283 A**: 5# for $13.25*
***B**: 50# for $64.75*
***C**: pallet 40 bags (2000#) for $2155.00*

Feather Meal (13-0-0) Provides a strong and quick release of nitrogen, about as fast as **8280** Blood Meal. Apply in the row at planting time for sweet corn, melons, brassicas and other heavy feeders. Not water-soluble; should be worked into the soil. This product is now pelletized for low-dust application. *No NH sale*. **MOFGA**

***8286 A**: 5# for $15.00*
***B**: 50# for $80.00*
***C**: pallet 40 bags (2000#) for $2645.00*



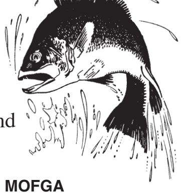


Fish Hydrolysate (2-5-1) Fish heads, bones, skin and guts finely ground and then enzymatically digested. Produced using waste from fish processing, not from wild-harvested whole fish. The resulting gurry is stabilized with phosphoric acid. Liquid goes into solution readily and can be used as foliar feed. Strain before adding to a drip irrigation system to avoid clogging the lines. Concentrated: use 2–4 Tbsp/gal of water for garden application or foliar spray. Use $2\frac{3}{4}$–$6\frac{1}{4}$ qt/50 gal water per acre. *No NH sale*. **MOFGA**

***8289 A**: pint (3#) for $8.00*
***B**: 1 gal (10#) for $27.50*
***C**: 5 gal (50#) for $116.50*

Fish Hydrolysate with Kelp (2-5-1) All the N, P & K of fish plus the micronutrients and growth hormones of kelp. Produced using waste from fish processing, not from wild-harvested whole fish. Can be used as a foliar feed, in drip irrigation and for better seed germination and seedling growth. Alice's preferred drench for onions and other early transplants; provides readily available nitrogen when microbes are still sluggish in cold spring soil and encourages vigorous rooting. Improves plant vigor and stress resistance, increases storage life. Use 4 Tbsp/gal water for fertigation, 2–3 Tbsp/gal water for foliar spray. Use $2\frac{3}{4}$–$6\frac{1}{4}$ qt/50 gal water per acre. *No NH sale*. **MOFGA**

***8292 A**: pint (3#) for $11.00*
***B**: 1 gal (10#) for $31.50*
***C**: 5 gal (50#) for $111.00*



Fish Meal (6-13-0) Fish scraps (a food industry byproduct) are cooked, screened and milled to a uniform particle size. No stabilizers or additives. Once in the ground the odor fades quickly. Excellent source of nitrogen and phosphorus. Use as a sidedressing or mix into compost to provide added nitrogen and a bacterial boost. *No NH sale*. **MOFGA**

***8295 A**: 5# for $16.25*
***B**: 45# for $101.25*
***C**: pallet 40 bags (1800#) for $3130.00*

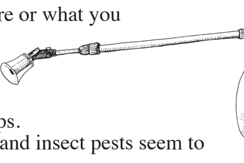
Poultry-Manure Compost Kreher Enterprises (5-4-3 with 9% Ca) Composted, pasteurized and pelletized poultry litter from New York farms provides a good balance of major plant nutrients and other essential elements. Pasteurization removes the threat of weed seed and pathogen contamination, and the composted material increases the biological activity of your soil. Extremely popular with our commercial veggie-farming customers. *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

***8301 A**: 5# for $7.75*
***B**: 40# for $25.00*
***C**: pallet 50 bags (2000#) for $850.00*

Crab Meal Biogreaux Crab Shell (4-4-0; 18% Ca) A nutrient-rich byproduct of blue crab facilities. As well as being an excellent source of macronutrients, crab shell meal is high in chitin (average 13.1%). Adding it to your soil puts beneficial chitin-eating bacteria into a feeding frenzy and subsequent population boom. Once they've eaten up all the chitin you applied, they will turn upon pathogenic fungi and nematodes and disease-causing bacteria like *E. coli* and salmonella. A solid body of scientific evidence supports the efficacy of chitinous soil amendments in the control of soil-borne pathogens. Will help you grow massive specimens of field-grown cannabis. Improves lodging resistance and reduces branch breakage. A key ingredient of our **8367** CannaLot MegaSoil. The same benefits of NPK and chitin apply to veggie cropland; also a useful addition to compost mixes and potting soils at $\frac{1}{2}$ cup per cubic foot. *No NH sale*. A-size **MOFGA**; B/C sizes **OMRI**

***8304 A**: 5# for $13.50*
***B**: 50# for $65.00*
***C**: pallet 40 bags (2000#) for $2375.00*

The solution is all in solution!



No matter where you are or what you grow, you've probably noticed two trends:

- Rain is an increasingly unreliable source of water for crops.
- A few more diseases and insect pests seem to arrive each year.

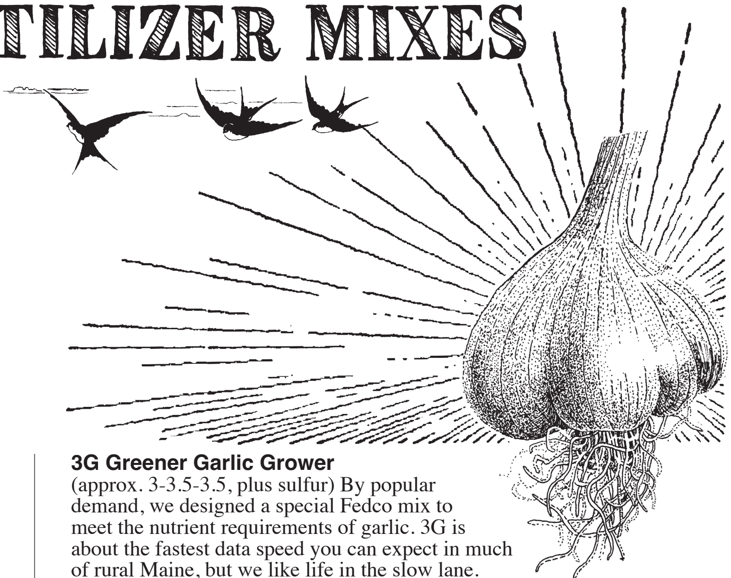
Gardeners and farmers are having to irrigate when and where they've never had to before, and they are having to manage new, unfamiliar diseases and pests. It can be hard to decide whether it's worth the time and expense to irrigate or spray. If you're taking the time to water or spray your crop, why not boost the water with some extra nutrients or beneficial organisms?

Fertigation means adding water-soluble products to an irrigation system. Foliar sprays can be applied on a small scale with pump sprayers (p. 157.) Check out the chart to learn about all the great things you can use to supercharge your water!

Item	Product	Primary function	Fertigation rate	Foliar spray rate
8167	Humic Acid	Chelator	1 oz/50 gal	1 oz /50 gal
8170	Fulvic Acid	Chelator	0.1–1 fl oz/gal	0.1–1 fl oz/gal
8175	BioOrganics Endo	Mycorrhizal inoculant	1 Tbsp/gal	
8180	Mammoth P	Beneficial bacteria	0.6mL/gal	
8185	EM-1	Beneficial bacteria	5 fl oz/gal	5 fl oz/gal
8189	Monster Plant Mojo	Macronutrients	2–4 oz/gal	2 oz/gal
8266	Kelp-It	Micronutrients		0.5 tsp/gal
8269	Liquid Kelp Concentrate	Micronutrients	1 Tbsp/gal	1 Tbsp/gal
8289	Fish Hydrolysate	Macronutrients	4 Tbsp/gal	2 Tbsp/gal
8292	Fish w/ Kelp	Macro & micronutrients	4 Tbsp/gal	2-3 Tbsp/gal
8663	Karanja Oil	Synergist		2 Tbsp/gal
8710	Cease	Biofungicide	1.25 fl oz/gal	1.25 fl oz/gal
8714	ThermX 70	Soil and leaf penetrant	0.5 tsp/gal	0.5 tsp/gal
8717	Nu Film P	Sticker-spreader		4–6 fl oz/100 gal

FEDCO'S FERTILIZER MIXES

All ingredients in our mixes, which are formulated and blended in-house, are on the National List and on the MOFGA list of allowed products.



Sleepytime Garden Blend The last of the root vegetables have been tucked into the cellar, and the soil microbes snooze contentedly under a blanket of young winter rye. Snow is coming soon, and a hush descends on the gardening season. The gardener may wish to feed the garden a bedtime snack before she curls up by the fire with the new Fedco catalog and a cup of tea, but this is not the time for fertilizer with soluble nutrients. Roots and microbes alike are too sleepy to do anything with rich food, and it will just get washed away before spring arrives. It's the perfect time to spread rock powders, which need time and moisture to release their benefits. Our blend of granite, zeolites, gypsum, microminerals and humates will improve soil structure, remineralize and enhance nutrient availability for the next growing season. Does not contain significant amounts of soluble nutrients and will have a gently balancing effect on soil pH, so may be applied to any soil without regard to soil test results. Apply 2 tons/acre or 100#/1000 sq ft. **MOFGA**

***8307 A**: 5# for $10.50*
***B**: 45# for $66.25*
***C**: pallet 40 bags (1800#) for $1715.00*

Vegemighty (3.4-2.2-3.5) An excellent all-purpose slow-release fertilizer for those who prefer to avoid animal products. Great for flower bulbs because it won't attract critters. Use 1–2 tsp per transplant (or bulb) mixed into the loosened soil below planting depth, or at 5#/50 sq ft as a topdressing. Contains soybean meal, rock phosphate, organic alfalfa meal, sulfate of potash and kelp meal. Does not contain brewers' yeast extract, and may or may not encourage the adoption of an Australian accent. *No NH sale*. **MOFGA**

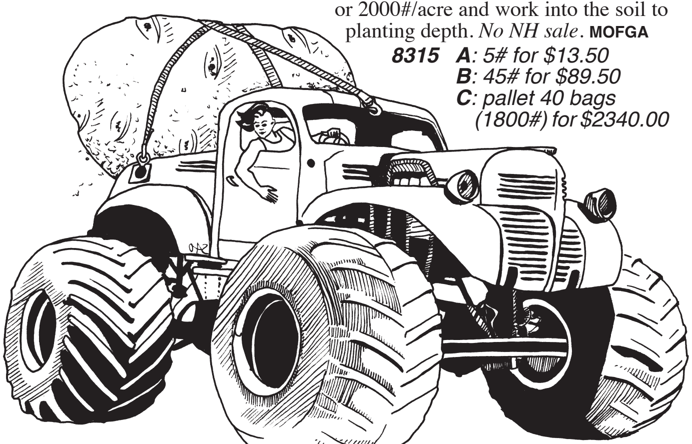
***8309 A**: 5# for $12.50*
***B**: 45# for $82.50*
***C**: pallet 40 bags (1800#) for $2135.00*

Gungnir Asparagus Mix (2-5-7) Named for the legendary dwarf-fashioned spear wielded by the Norse god Odin, our house mix will help you grow mighty spears of asparagus. Formulated to meet Penn State Extension's recommendations for the annual fertilization of asparagus beds: contains bone char, alfalfa meal, sulfate of potash, wollastonite, soybean meal, biochar and compost. Masterful forging and magical runes ensured that Gungnir the spear would strike its target regardless of the strength and skill of the warrior's hand; Gungnir the fertilizer will help you strike your target yields regardless of your strength and skill as a gardener, but do start by ensuring that your soil pH is adequate (asparagus hates acidic soil) and keep your beds well-weeded and well-watered. Broadcast in early spring before spear emergence at 5# per 20 row feet or one ton per acre. To keep this product shelf-stable, we pack the biochar and compost in a small plastic bag within the main bag; mix them with everything else at fertilization time. *No NH sale*. **MOFGA**

***8310 A**: 5# for $12.00*
***B**: 45# for $81.00*
***C**: pallet 40 bags (1800#) for $2175.00*

Turbo-Tuber (Approx. 7-2-9, plus 2% Ca and 3.5% S) Magic Molly, our potato superhero, is the fastest girl in town: her jacked-up hybrid pickup runs on our high-test organic fertilizer, formulated to meet the nutrient requirements of potatoes. Blended in-house from fish meal, feather meal, soybean meal, sulfate of potash, dolomitic lime, pasteurized poultry manure and K-mag. On balanced soils, apply at 5#/25 row feet, 50#/250 row feet, or 2000#/acre and work into the soil to planting depth. *No NH sale*. **MOFGA**

***8315 A**: 5# for $13.50*
***B**: 45# for $89.50*
***C**: pallet 40 bags (1800#) for $2340.00*



3G Greener Garlic Grower (approx. 3-3.5-3.5, plus sulfur) By popular demand, we designed a special Fedco mix to meet the nutrient requirements of garlic. 3G is about the fastest data speed you can expect in much of rural Maine, but we like life in the slow lane. We don't mind planting garlic in October and waiting until August to reap our pungent harvest. With 3G Greener Garlic Grower, you can expect better spring emergence, more vigorous plants, bigger bulbs and richer flavor. Blended in-house from sulfur, alfalfa meal, bone char, zeolites, sulfate of potash, feather meal and neem cake. On balanced soils, apply 2 tons/acre or 100#/1000 row ft banded in-row, or 1 Tbsp per clove for small plantings. If you like gardening even more than cat videos, try 3G. If you're ready for an upgrade, check out our new **8319** 5G Garlic Growing Kit. *No NH sale*. **MOFGA**

***8317 A**: 5# for $13.00*
***B**: 45# for $87.75*
***C**: pallet 40 bags (1800#) for $2400.00*

5G Grow Great Garlic Greener, Guaranteed Kit Just as 5G ushered in a new telecom era, our 5G kit will revolutionize your garden's garlic game. You'll be effortlessly broadcasting and downloading high-fidelity organic fertility customized for garlic, and you can count on crisp vibrant scapes and bulbs to be streaming into your kitchen in high definition, even if you live in the willy-wacks. If you're new to growing garlic, worry not, because everyone gets great coverage with our garlic network! Includes everything but the garlic seed and mulch. We even have you covered post-harvest with a vigorous oats variety, for sowing where the garlic was and carrying those beds solidly through the rest of the growing season.

Kit includes user-friendly instructions and supplies for up to 100 cloves of seed garlic (about 2–3 lb, which you can order seasonally from our Fedco Bulbs catalog). We recommend 1 sq ft per garlic plant, so kit covers about 100 sq ft of growing space. You'll get 5# 3G Greener Garlic Grower; 2# blood meal; 2# forage oat covercrop seed; 8 wooden garden stakes; 4 mesh produce bags. *No NH Sales*. All inputs **MOFGA**. **NEW!**

***8319** garlic-growing kit (13#) for $42.50*

Blueberry Booster A blend of granite meal, K-Mag, sulfur, Tennessee brown phosphate, trace minerals and compost. Brings down the soil pH and provides the nutrients necessary for healthy blueberry plants and good fruit. Mix 3# per plant into the soil when planting. As a side dressing in spring or fall, apply 3# per plant. *No NH sale*. **MOFGA**

***8321 A**: 3# for $6.25* ***B**: 30# for $29.50*

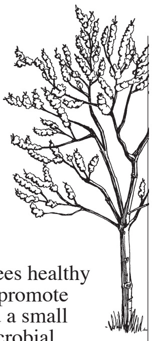
Feed Me!

Plant and animal byproducts provide a natural source of plant nutrients and support the organic principle of recycling natural resources within agricultural systems, putting "waste" to productive use, reducing landfill space, and preventing contamination of our waterways. Unlike synthetic fertilizers, they provide tasty nibbles for soil life, and a well-fed microbial population will help to unlock the nutrients already held in your soil.

Fertilizer analyses report levels of soluble nitrogen (N), phosphate (P) and potash (K) available to your plants in the current growing season. Additional nitrogen, phosphorus and potassium contained in the material may become available at varying rates over time. Release rates depend on many factors, including particle size, temperature and microbial activity in your soil.

The analyses we provide for our plant and animal meals, and for the mixes we produce in-house using those products, are not guaranteed analyses. These natural products are highly variable. These analyses represent Maine state lab tests performed on the most recent lot we purchased, and we keep these numbers updated on our website as fresh lots come in and new tests are performed. The numbers here do provide some guidelines for determining the approximate ratios of nutrients in plant and animal meals.

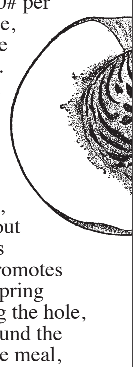
MORE FEDCO MIXES



Hole-Istic Spring Planting Mix Recommended for establishing new fruit trees. Our own well-balanced blend of Tennessee brown phosphate, alfalfa meal, Azomite and K-Mag in a humus-rich base of worm castings. Add 3# per tree hole when planting. To keep this mix shelf-stable, we pack the alfalfa meal in a plastic bag within the main bag. When spreading this product, mix the alfalfa with the blended ingredients at approximately 1 part alfalfa to 6 parts blended ingredients. *No NH sale*. **MOFGA**

8324 ***A****: 3# for $7.75* ***B****: 30# for $42.25*

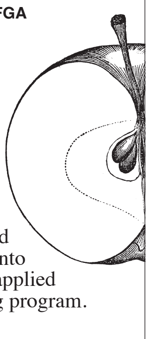
Fruition Mix A balanced fertilizer to keep your bearing fruit trees healthy and productive. Gypsum (maintains optimum calcium levels to promote disease resistance), soybean meal (for slow-release nitrogen and a small potassium boost), and Azomite in a compost base to fuel the microbial engine. Bearing fruit trees may not require fertilization every year, but if your tree put on 4" or less of terminal growth in the previous season then our Fruition Mix will put new spring in its step. In spring apply 10# per 1" trunk diameter, or 1 bag per tree 5" and over, out to the drip line, and then cover it with mulch. To keep this product shelf-stable, we pack the soybean meal in its own plastic bag inside the larger bag. When applying this mix, first spread the blended ingredients, then sprinkle the soybean meal on top, at a rate of 1 part soybean to 4 parts blended ingredients. *No NH sale*. **MOFGA**



8330 ***A****: 45# for $52.75*

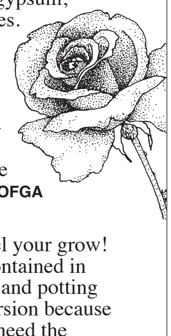
Fall Fruit Tree Prep Mix To prepare your land in fall or winter for spring fruit-tree planting, use this mix. Without digging a hole, spread one bag on an area 4–6' in diameter. Cover with 1/8 yd (about 3 1/2 cu ft) of compost and then with 1/8–1/4 yd of chipped branches and brush. As the chipped brush breaks down over the winter it promotes mycorrhizal fungi, which improve root growth and function. By spring you'll have a rich spot ready to plant; just pull back the mulch, dig the hole, and incorporate the supplements and compost as you back-fill around the tree roots. Contains calcitic lime, rock phosphate, Azomite, granite meal, humates, bone char, kelp meal and blood meal. *No NH sale*. **MOFGA**

8333 ***A****: 32# for $46.75*



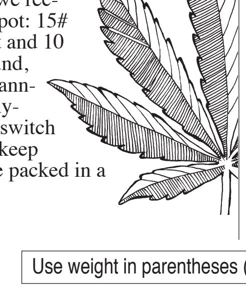
Ancients Rise Mix Whether they be abandoned heirlooms or wild seedlings, tucked in the woods or growing alongside an old road, apple trees live on for hundreds of years. More and more people are renovating these old and sometimes forgotten trees, not only to enhance production and fruit quality, but also as acts of reverence. Our unique blend of rock powders, trace minerals, biostimulants and humic acid is formulated to enhance the soil cation exchange capacity, build humus, and condition the soil in which the ancient roots reside. Best if spread at the tree's drip line and several feet beyond. No need to work into the soil—just cover with a thick layer of woody mulch. Can be applied in fall or spring, ideally in conjunction with a thoughtful pruning program. Apply one bag per old tree. Ancients, rise! *No NH sale*. **MOFGA**

8336 ***A****: 45# for $61.50*



True Love Rose and Ornamental Mix (2.5-6-3) Show your flowers you appreciate them by treating them to dinner now and then. This mix is formulated to feed both soil and plant to encourage healthy foliage and lush, colorful blooms. Contains fish meal, alfalfa meal, bone char, gypsum, Azomite, sulfate of potash, epsom salts, kelp meal and humates. Supplemented with endomycorrhizae to improve the roots' ability to take up nutrients, water and oxygen. Roses are particularly high-maintenance garden partners (their preferred love language is gifts of fertilizer), but other ornamentals will also appreciate this mix if they look like they need a little tender loving care. Love might be blind, but you'll definitely see a difference in your blossoms. Apply 1/2 cup per plant once the soil has warmed (approx. 10 cups per 5# bag). *No NH sale*. **MOFGA**

8337 ***A****: 5# for $14.25* ***B****: 45# for $94.50*



CannaDiesel Mix A high-octane well-balanced blend to fuel your grow! This fertilizer and amendment mix includes all the goodies contained in our well-loved **8367** CannaLot MegaSoil, minus the compost and potting soil. Local growers requested we offer this slimmed-down version because they plant into the ground (rather than containers) and didn't need the soil. It's also cheaper to ship without the soil. Contains customer Dan K's time-honored CannaLot blend of alfalfa, soybean, blood, crab and kelp meals, along with worm castings, zeolites, rock phosphate, Azomite, bone char, basalt, wollastonite and MycoApply. To maximize growth without overdoing the fertility, we recommend these proportions for each plant grown in a pot: 15# CannaDiesel mixed with 2 1/2 gallons of nice compost and 10 gallons of fertile potting soil. For planting in the ground, forgo the potting soil and use the same proportions CannaDiesel and compost for each 2 cu ft hole. As with anything, it's best to try it with just one plant before you switch over your entire operation to a different fertilizer. To keep this mix shelf-stable, the nitrogen-rich ingredients are packed in a small bag within the main bag. *No NH sales*. **MOFGA**

8338 ***A****: 5# for $12.00* ***B****: 45# for $81.00*

OTHER MIXES AND ADDITIONS

Fertrell® Feed·n·Gro (3-2-3) Slow-release plant food made with blood meal, bone meal, feather meal, peanut meal, alfalfa, aragonite, sulfate of potash, greensand and kelp. A well-balanced all-purpose fertilizer. Apply when planting at 20–30#/1000 row ft and side-dress at the same rate when plants are a few inches high. Can be used under transplants at 1/4 cup per hole. Side-dress later if needed. Apply to orchards at a rate of 3000#/acre. *No NH sale*. **MOFGA**

8339 ***A****: 5# for $12.75*
B*: 50# for $62.50*
C*: pallet 40 bags (2000#) for $2045.00*

NutriVeg® (5-4-4, 5% Ca) A blend of fertilizers and minerals to provide balanced nutrition for all your plants and vegetables. Contains alfalfa meal, crab meal, feather meal, fish meal, kelp meal, kelp extract, rock phosphate and sulfate of potash. Before planting, apply 10–20#/1000 sq ft, working it into the top of the soil. Reapply as needed during the growing season. For fruit trees and shrubs apply 1 cup per 1" of trunk diameter around the drip line and work into the top layer of soil where roots feed. Apply again if trees are under stress or if soil is poor. Made in Maine. *No NH sale*. **MOFGA**

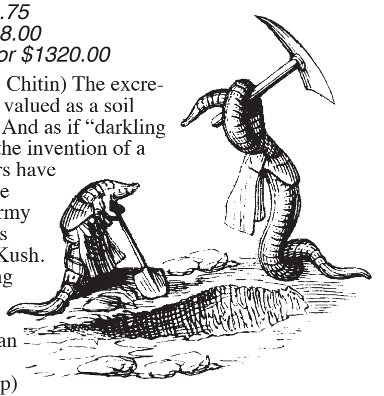
8342 ***A****: 5# for $16.75*
B*: 50# for $89.25*
C*: pallet 40 bags (2000#) for $2935.00*

Biochar Join the carbon-farming revolution. Biochar is the product of heating organic matter in a low-oxygen environment: instead of releasing the carbon into the atmosphere, this converts it to a highly stable form that can be held in the soil for hundreds or thousands of years. Think of biochar as a super-compost! Biochar helps your soil sequester more carbon and emit less nitrous oxide (a greenhouse gas 300 times more potent than carbon dioxide). It provides a dream home for beneficial bacteria and fungi and prevents essential plant nutrients from leaching out of the root zone. This is 100% pure horticultural-grade raw char, with 70–85% fixed carbon. Apply raw char at up to 20#/1000 sq ft or 700#/acre on ground you are resting or preparing to put into production for the first time. **Do not apply this product as-is to ground that is currently in production!** Raw char may inhibit plant growth for a year or two: the native soil microbes consume available nitrogen while slowly colonizing the micropore matrix. Then the magic happens and plant growth explodes in year three or four. If you can't wait that long, blend raw char with your compost feedstock, using up to 50% char. The compost will finish faster and the compost/biochar blend may be applied to growing plants with immediate benefits. And if you're REALLY in a hurry, soak biochar in compost tea for 24 hours (this is practical only for small operations, since the mucky wet biochar would not handle well in a mechanical spreader). But Mother Nature counsels patience. **MOFGA**

8348 ***A****: 5# for $10.75*
B*: 25# for $39.25*
C*: pallet 80 bags (2000#) for $2000.00*

Worm Castings (0.5-0.5-0.3 avg. and trace minerals) Research at Ohio State University indicates that adding 10–20% worm castings by volume to potting mixes greatly improves germination, seedling growth and plant productivity, but greater amounts produce decreased benefits. Worm castings limit plant disease and have beneficial effects including enhanced mycorrhizal activity and the suppression of parasitic nematodes. Benefits are lost if castings are sterilized. Our non-sterile castings come from locally farmed worms. **MOFGA**

8350 ***A****: 8 qt (12#) for $24.75*
B*: 20 qt (30#) for $38.00*
C*: 2 cu yd (2000#) for $1320.00*



Superworm Frass (2-2-2, 16% Chitin) The excrement of darkling beetles is highly valued as a soil amendment by cannabis growers. And as if "darkling beetle" didn't already sound like the invention of a fantasy novelist, the manufacturers have dubbed their darkling beetle larvae "superworms." On a dark and stormy night, an evil band of fungus gnats swarms toward your Conspiracy Kush. Superworm to the rescue! Darkling beetle is the common name for the Tenebrionidae family of beetles, which comprises more than 20,000 species worldwide. Their frass (a polite word for insect poop) is a respectable source of N-P-K, but more importantly it is a rich source of plant-available chitin. Frass nourishes chitin-feeding bacteria and fungi, which in turn devour gnat eggs and root-feeding nematodes. Chitin also fortifies plants' cell walls, stimulates their immune systems, and fosters healthy blooms (think more and bigger and stickier buds!) Not just for cannabis: frass is suitable for houseplants, is a useful addition to potting soils, and is an excellent sidedressing for any crop. **For soil mixes:** Incorporate 1/2–1 cup frass per cubic foot of media. **For fertigation:** Add 1/2 cup per gallon of water, shake well, and apply every 3–4 weeks. **For sidedressing:** 2 Tbsp per plant before watering every 2–3 weeks. **For foliar feeding:** 1–2 Tbsp/gal water; steep 30 minutes, screen solids, and spray onto leaves. *No NH sale*. **MOFGA**

8351 ***A****: 1# (0#) for $11.25*
B*: 5# for $42.50*
C*: 45# for $277.50*

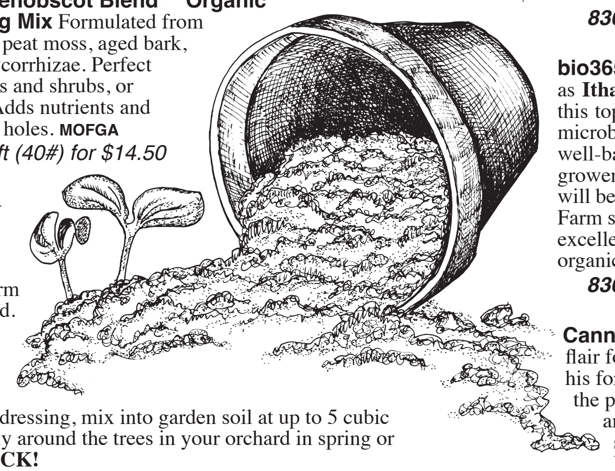
COMPOST & POTTING SOIL

Coast of Maine Quoddy Blend™ Organic Lobster Compost Extra rich soil conditioner for flower and vegetable gardens. Made of compost, peat, aged bark, lobster and crab meal. Rich in micronutrients. Ideal for flower and vegetable beds. **OMRI**

***8356 A**: 1 cu ft (40#) for $14.25*

Coast of Maine Penobscot Blend™ Organic & Natural Planting Mix Formulated from compost, sphagnum peat moss, aged bark, oyster shells and mycorrhizae. Perfect for sidedressing trees and shrubs, or topdressing lawns. Adds nutrients and structure to planting holes. **MOFGA**

***8359 A**: 1 cu ft (40#) for $14.50*

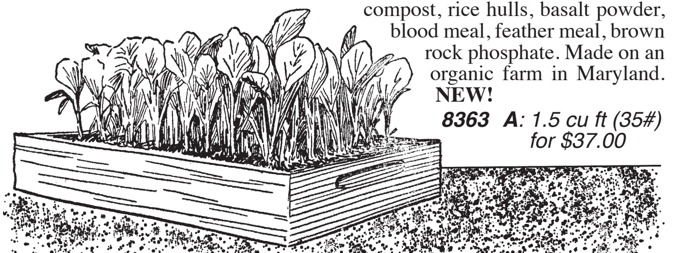


Rainbow Valley Compost This top-quality compost, made in Sidney, ME, comes highly recommended by farm advisor Mark Fulford. The lab results we saw showed strong nitrogen levels and sky-high organic matter. Use as a top dressing, mix into garden soil at up to 5 cubic ft/1000 sq ft, or apply around the trees in your orchard in spring or summer. **MOFGA** **BACK!**

***8362 A**: 1 cu ft (35#) for $18.00*

Peat-free Turbo Seed Starter Peat-free is the way to be! This professionally calibrated mix will give any peat-based potting mix a run for its money. In a head-to-head trial, we observed both root and leaf growth that rivaled our old standby, **8365** Ag Blend. We're proud to offer this high-performance mix by Summer Creek Farm, a certified-organic operation that has been developing and trialing peat-free mixes for the health of plants and the environment since 2005. This reliable mix will keep your plants going strong in their flats for at least 4 weeks. Outstanding water retention; *resist the urge to overwater!* Use a popsicle stick to probe the center of a cell to see if tray needs water—overwatering can inhibit good germination. 95% of material in this mix is from agricultural by-products. Contains coconut coir, Summer Creek compost, rice hulls, basalt powder, blood meal, feather meal, brown rock phosphate. Made on an organic farm in Maryland. **NEW!**

***8363 A**: 1.5 cu ft (35#) for $37.00*



Why go peat free? Peat is an extraordinary horticultural material, but it is mined from peatlands, which are beautiful and remarkably biodiverse ecosystems that deserve preservation. What's more, peat bogs sequester an incredible amount of carbon; it's estimated that per square meter, they hold 500% as much carbon as the Amazon rainforest. Let's wean ourselves off peat right away! Try **8363** Peat-free Turbo Seed Starter!

GreenTree Ag Blend™ All-purpose blend, light on the peat, with coconut coir, worm castings and a well-balanced organic nutrient package. pH 6.5 and EC 1.5 mS/cm. Suitable for seed starting, transplants and microgreens; expect the nutrient package to sustain seedlings for at least 4 weeks. Made in New York. **MOFGA**

***8365 A**: 1.5 cu ft (40#) for $25.00*
***B**: pallet 40 bags (1000#) $755.00*

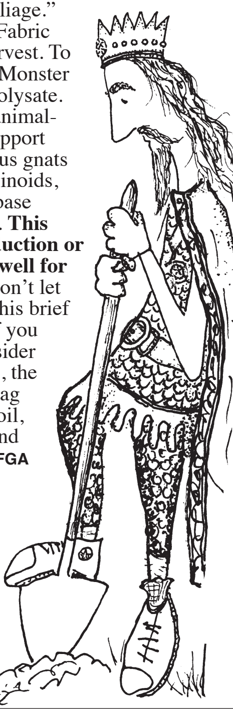
bio365 BIOALL™ A premium high-test potting soil. Formerly branded as **Ithaca Blend**. Coir, sphagnum peat and worm castings form the base of this top-quality mix; bio365's own biochar is added to encourage a thriving microbial population, and the whole concoction is topped off with a generous well-balanced helping of organic nutrients. Highly recommended for indoor growers, container gardening, soil blocking or slow-growing seedlings that will be in the greenhouse for six weeks or more. Seth Yentes of North Branch Farm said his onion seedlings thrived best in this soil. He observed that it has excellent water-retention capacity, and it doesn't get slimy on top like some organic potting soils. Made in New York. **MOFGA**

***8366 A**: 1.5 cu ft (40#) for $34.00*
***B**: pallet 40 bags (1000#) for $1115.00*

CannaLot Medicinal MegaSoil Dan, a faithful Fedco customer with a flair for experimentation, developed this mix and was kind enough to share his formula with us. He says, "I've been working on maximizing inputs to the point of performance versus death on these plants for about ten years, and have developed a feeling for how much they can take…This mix showed no signs of N or P overdose on foliage."

Use this complete soil mix in **8807-8812** Fabric Pots to take your cannabis plants from 12" to harvest. To maximize quality and yield, fertigate with **8189** Monster Plant Mojo and **8185** EM-1 and **8289** Fish Hydrolysate. Contains a wide variety of mineral-, plant- and animal-based organic fertilizers (including biochar to support microbial activity, crustacean meal to deter fungus gnats and stimulate production of terpenes and cannabinoids, and wollastonite for strong plant structure) in a base of compost, worm castings, coir and a little peat. **This specialty soil is not intended for seedling production or for growing vegetables and may not perform well for those purposes.** As King Arthur would sing, "Don't let it be forgot/ That once there was some pot/ For this brief shining season that was grown/ In CannaLot." If you want the amendments without the compost, consider **8338** CannaDiesel. To keep this mix shelf-stable, the nitrogen-rich ingredients are packed in a small bag within the main bag; first fill your pot with the soil, then pour the contents of the small bag on top, and mix well. Approx. 45 qt or 1.5 cu ft per bag. **MOFGA**

***8367 A**: 45# for $100.00*



Living Acres NP Germination Blend™ A light-textured potting soil with extra perlite, screened to 1/4". Recommended for the smallest flower and herb seeds. Seedlings more than three weeks old should be fertilized or transplanted to a more nutrient-rich blend to grow out. Made in Maine. **MOFGA**

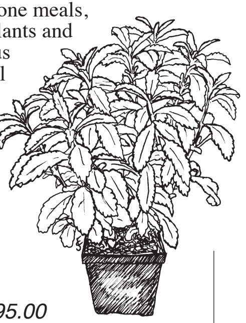
***8378 A**: 2 cu ft (50#) for $26.75*

Cheat Sheet for Gardeners

If you're a beginning gardener or new to Fedco, the choices can be overwhelming. Over time you'll learn what's right for you through reading, talking with neighbors, and the best teacher of all: trial and error. But here are some go-to items that are either especially versatile, especially easy to use, or that really make a difference between success and failure:

- **Cover Crop:** Choose **8019** Buckwheat if you're planting it after your last spring frost date or more than four weeks before your first fall frost date; **8085** Common Oats if you're planting early or late in the season or **8040** Dutch White Clover if you want to plant something between rows of crops.
- **Fertilizer:** WAIT! Use our **8194** Soil Testing Service and we'll tell you what your soil needs. That being said, seedlings always like to be watered in with **8292** Fish Hydrolysate with Kelp.
- **Garden Fabric:** Protect your crops from insects, weather extremes and birds with **8872-8874** ProtekNet or **8876** Covertan. Warm the soil and block weeds with **8418** Black Plastic Mulch. They work well together.
- **Fungicide: 8709** Monterey Complete Disease Control is broad-spectrum, low-toxicity and poses no threat to pollinators. Best used as a preventive spray.
- **Insecticide: 8768** Bug-Buster-O is an effective broad-spectrum insecticide with quick knockdown. Do not use where pollinators are active.
- **Seedling Supplies: 8791-8801** CowPots encourage the healthiest root growth. Hold them in sturdy **8831** Indestructible Bottom Trays. **8365** GreenTree Ag Blend potting soil is economical and suitable for nearly all seedlings. Use a **8838-8840** Heat Mat to ensure good germination rates.
- **Hand Tool:** The **8908** Weeding Knife (Hori-Hori) is versatile, classy and practically indestructible.
- **Pruning Tool:** The **9010/9011** Felco #7/#10 pruners cut branches up to an inch thick and won't strain your hands.
- **Irrigation Equipment:** Start with one of our kits (**9098** for gardens or **9104** for orchards).

VERMONT COMPOST POTTING MIXES



Vermont Compost Plus® Blended from manure compost, sphagnum peat moss, granite, basalt, coir, vermiculite, blood and bone meals, kelp and gypsum. A great boost for transplants, potted plants and garden soils. Improves soil structure, provides a generous dose of slowly released nutrients and enhances microbial activity. Rejuvenate potted plants by spreading a shallow layer on the top of the container and watering in. Add a few tablespoons in the bottom of a transplant hole to reduce transplant shock. Sidedressing greens after early cuttings will stimulate new growth. Improve your potting soils with 4–8 Tbsp/qt. Will not burn roots. Made in Vermont. **MOFGA**

8369 ***A****: 6 qts (5#) for $14.50*
B*: 60 qts (60#) for $68.75*
C*: pallet 25 bags (2000#) for $1490.00*
8373 ***A****: 2 cu yd tote, drop ship (2000#) for $995.00*

Vermont Compost Jolly Roger™ Sick and tired of poor yields from your container-grown cannabis or hemp? Ahoy, matey, this flowering and fruiting mix is for you! Once plants are established enough to transplant into Jolly Roger, we're sure you'll be shouting "shiver me timbers!" as you witness a vigorous vegetative phase and an abundant booty-ful harvest. Also great for tomatoes and other vegetables, flowers or houseplants that need high fertility. For this finishing mix, be sure to use a container size commensurate with the size of the plant you hope to grow; smaller pots will limit yield potential. Not recommended for cloning or germination. Contains manure compost, sphagnum peat, granite meal, basalt, coconut coir, blood meal, feather meal, kelp meal, gypsum, bone meal, vermiculite and perlite. Made in Vermont. **MOFGA**

8370 ***A****: 60 qts (60#) for $68.75*
B*: pallet 25 bags (2000#) for $1490.00*
8373 ***B****: 2 cu yd tote, drop ship (2000#) for $995.00*

Vermont Compost Fort Vee™ Potting Soil Sphagnum peat, manure compost, vermiculite and coir with a blend of organic and mineral amendments. Widely used by growers who make soil blocks. Has good water retention and a long-lasting nutrient supply from the high proportion of compost in the mix. Highly recommended for slow-growing seedlings that will be in the greenhouse for 6 weeks or more. Made in Vermont. **MOFGA**

8371 ***A****: 6 qts (5#) for $13.00*
B*: 60 qts (60#) for $62.75*
C*: pallet 25 bags (2000#) for $1400.00*
8373 ***C****: 2 cu yd tote, drop ship (2000#) for $900.00*

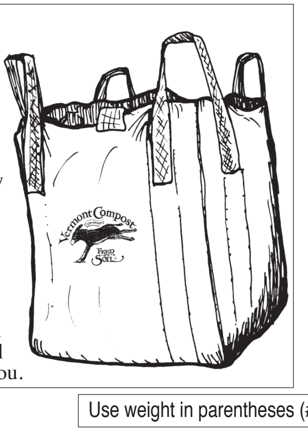
Vermont Compost Fort Light™ Potting Soil Sphagnum peat, manure compost, coconut coir, perlite, and a blend of organic and mineral amendments. Recommended for cell-tray seedlings, but not soil blocks. (For soil blocks, consider **8371** Fort Vee.) Warms more quickly and drains better than Fort Vee. Might need additional fertilizing prior to transplanting if seedlings grow for more than 4 weeks; try topdressing with **8369** Compost Plus. Made in Vermont. **MOFGA**

8374 ***A****: 6 qts (5#) for $13.00*
B*: 60 qts (60#) for $62.75*
C*: pallet 25 bags (2000#) for $1400.00*
8373 ***D****: 2 cu yd tote, drop ship (2000#) for $925.00*

Vermont Compost Perennial Blend™ So many customers ask what to use for filling their raised beds or large containers, and we finally have an answer. Crafted by the soil experts at Vermont Compost, this blend meets our high standards. Coarser than potting mixes and formulated as a complete soil for organic cultivation of woody plants, shrubs, herbs, vegetables and flowers. As with any bed or container, periodic applications of quality compost are recommended. Fedco grower Jacob Mentlik of After the Fall Farm favors this mix for culturing all kinds of potted perennials. Contains manure compost, bark, granite, basalt, sphagnum peat, coconut coir, vermiculite, kelp meal, blood meal, gypsum and bone meal. Made in Vermont. **MOFGA**

8377 ***A****: 6 qts (5#) for $13.00*
B*: 60 qts (60#) for $52.75*
C*: pallet 25 bags (2000#) for $1100.00*
8373 ***E****: 2 cu yd tote, drop ship (2000#) for $850.00*

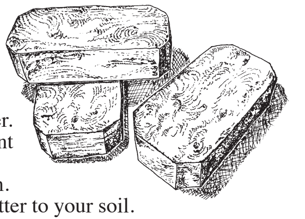
Vermont Compost Totes



Please Note! Totes are shipped from Vermont via freight (we do not stock them at our warehouse). If you do not have a forklift or loading dock to handle the delivery, you may pick the tote up at our warehouse but regular freight charges will still apply. Or, for an additional $85, you may request a lift gate to lower the pallet from the truck to the ground once it reaches your location.

If your location cannot accommodate a full-sized tractor-trailer (with enough room for it to turn around), you may request a smaller "straight truck" or provide us with an alternative shipping address for a commercial location that can receive your shipment for you.

MORE PLANTING MEDIUMS

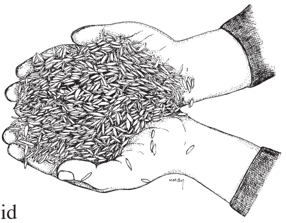


Coir Blocks This premium washed low-EC coconut coir is a biodegradable and environmentally sound substitute for peat moss. Compressed blocks of coconut fibers (coir) swell to eight or nine times their original size when placed in hot water. The fibers are quite short but have excellent moisture-retention capacity. pH 5.0-7.0, electrical conductivity of less than 0.5 S/m. Use in potting mixes or to add organic matter to your soil. Improves aeration and nutrient retention. Easy to store and ship. Coir has been commended by the Wildlife Conservation Society as ecologically sustainable. To hydrate, allow the block to soak in water for about twenty hours, or until it's wet through and breaks apart. **OMRI**

8380 ***A****: one block (10#) for $18.00*
B*: pallet 220 blocks (2200#) for $1900.00*

Perlite Volcanic glass that has been heated until it "pops" like corn, resulting in a lightweight, porous and stable material. Widely used in potting mixes (usually as 20–25% of the total mix) to improve water retention and prevent compaction. Also used for rooting cuttings: place cuttings in a plastic bag of moistened perlite with the cut ends buried up to the node, then fill the rest of the bag with air, seal, and leave in indirect sunlight for 2–3 weeks. **OMRI**

8389 ***A****: 1.5 cu ft (15#) for $29.25*



Rice Hulls A great alternative to perlite in your growing medium— carbonaceous, renewable and less dusty to mix. May be included at up to a third of your potting mix by volume. Also used as a mulch for container plants to retain soil moisture and improve microbial activity. Parboiled to eliminate viable weed seeds. Improves aeration and retains moisture. May cause rapid surface dry-out even when underlying soil moisture is ample; be sure not to overwater. Remains stable during the average plant production cycle with minimal nitrogen tie-up. Actual net weight is 50# per bag; the 65# shipping weight reflects the bulkiness of the bag and how much it costs to ship one in a box. (Approx. 7 cu ft/bag; 112 cu ft/pallet). **OMRI**

8392 ***A****: 7 cu ft (65#) for $31.25*
B*: pallet 16 bags (1800#) for $400.00*

Groundbreaking Work

If you're starting a new garden from turf, follow these steps:

Take a soil sample. Before you can fertilize your ground, you need to know what's already there and what's lacking. Consider our **8194** Soil Testing Service or contact your local cooperative extension for resources.

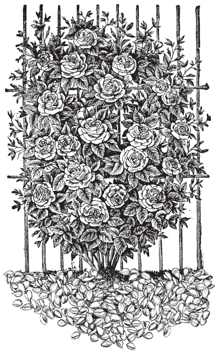
Smother the grass. This is the part that takes patience, but it's much better than trying to spade it under (which inverts the soil profile and usually is less effective at killing the grass) or digging it out (which removes precious topsoil too). You will need a thick, light-blocking barrier: old billboard covers have a reputation among commercial farmers for being the most effective, but many of them are made with a layer of PVC, which can leach unhealthy substances into the soil. A double or triple layer of cardboard (weighed down with compost, soil, or straw) will also do the trick. Don't use materials that will photodegrade (like plastic tarps) or try to get away with using only a thick layer of straw (the grass will laugh at you). It will take at least several weeks to thoroughly kill the grass, longer for established stands of perennial weeds. Vegetation should be completely withered and the roots will be brittle.

Add fertilizer and compost (according to your soil test results) and incorporate it into the soil. Yes, no-till techniques can do wonders for long-term soil health, but now is not the time: first you have to teach this ground to grow annual vegetative crops instead of perennial grasses. Liming materials must be worked 6" deep. If you can't or won't use mechanical tillage, we recommend investing in a Broad Fork (found at valleyoaktool.com).

Plant a cover crop of annual ryegrass. One of our seed growers in Aroostook County recommends **8121** Annual Ryegrass as the best cover crop for "retraining" soil to grow annual crops instead of perennials. It can be planted any time from early spring to first frost.

Avoid certain crops the first year. Ground that was recently in sod often hosts wireworms, which are especially harmful to potatoes, corn, beans, peas, and root crops. (Yes, we know those are crops you really want to plant in a survival garden: reserve your existing garden space for them!)

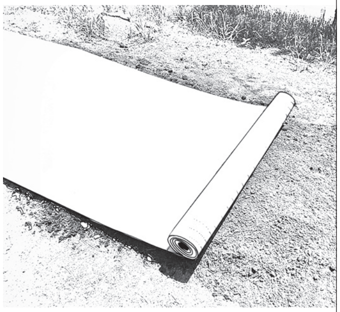
MULCHES



Buckwheat Hulls An attractive economical sustainable mulching alternative. Cover your beds with a thin layer of hulls, 1/2–1" thick: it will look sparse at first and the hulls may seem light enough to blow away in a good breeze. They will swell up nicely after a rain or two and settle down to a summer of weed and grass suppression. Fedco staffer Renee uses them in chicken nest boxes to keep eggs clean, and they make chick brooder poop patrol a breeze—clumping litter for chickens! We have a surprise customer base for these hulls from people making zafus and other pillows. The actual weight of each 2 cu ft bag varies, but is roughly 25#; the 35# shipping weight reflects the bulkiness of the bag and how much it costs to ship one in a box. **MOFGA**

***8397 A**: 2 cu ft (35#) for $12.50*
***B**: pallet 44 bags (1122#) for $450.00*

EcoMulch Earthtone Heavy Weight Roll. Hooray for the release of this OMRI-listed heavy duty paper mulch! Reclaimed cardboard, 100% biobased, biodegradable/compostable, it blocks weeds while preserving moisture and your conscience. Thicker and sturdier than most other paper mulches on the market, yet its clever crêped finish makes it a cinch to lay out because it naturally conforms to the shape of your beds. Can be laid by machine or by hand. Breathable and water-penetrable, so it's compatible with both drip and overhead irrigation. Sure, plastic mulches are a cheaper investment at the beginning of the season, but factor in end-of-season labor when plastic must be pulled up and deposited in a landfill. EcoMulch can be left to break down in situ, where it adds organic matter (~400 lb of carbon per acre!), improving the soil physically and biologically. Some crops, like peppers, may yield higher with plastic mulch, but many crops perform better with the subtly cooling effects of paper mulch (~3° cooler than black plastic, ~2° cooler than bare soil). This becomes more advantageous every year as summers get hotter with climate change. Single-season plastic mulch has had its day in the sun; join us in making the transition sooner than later! Natural brown color. **OMRI NEW!**

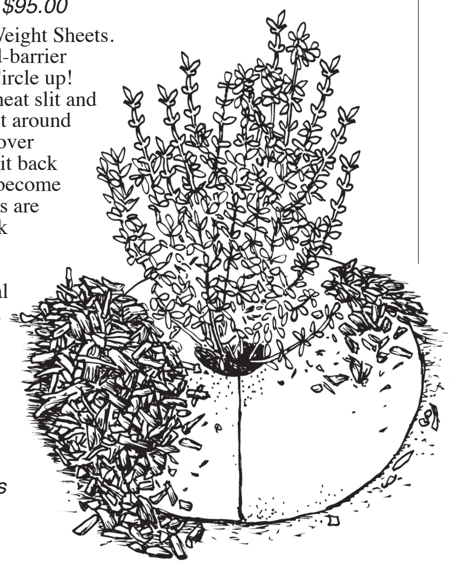


***8401 A:** 3x50' (4#) for $19.50*
***8402 A:** 4x100' (16#) for $43.50*
***B**: 4x500' (60#) for $151.50*

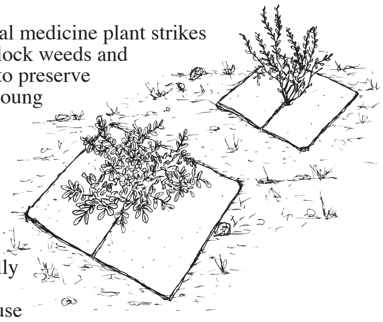
WeedGuardPlus® Standard Weight Roll. Sturdy dark brown paper provides a biodegradable mulch and weed barrier made from cellulose fibers. Porous enough to allow water penetration. Usually provides a season of weed suppression and soil-temperature moderation, although the rate of decomposition will depend on weather conditions and the degree of biological activity in the soil. Perfect for giving competitive crops a protected start. Recommended for pumpkins, squash, cabbage, broccoli and cauliflower. Not recommended for high-traffic areas or where reliable season-long protection is required. Please note that, as of 2022, WeedGuard is no longer OMRI listed, due to two FDA-approved colorants that serve to make it 100% opaque material. For a similar but heavier-duty paper mulch that is OMRI-listed, use **8401-8402** EcoMulch. Still, for those not pursuing certification, it is a great alternative to plastic mulch if you want to reduce your footprint or your end-of-season labor bill. 36" wide.

***8403 A**: 3x250' (21#) for $60.00*
***B**: 3x500' (35#) for $95.00*

WeedGuard Circles Heavy Weight Sheets. Looking for Earth-friendly weed-barrier mats for your planting sprees? Circle up! Each round sheet comes with a neat slit and center X, so you can easily slip it around the trunk or stalk of the plant. Cover with a light layer of mulch and sit back while your weed-free plantings become the talk of the town. These sheets are heavy weight (54% heavier stock than WeedGuardPlus), so you can anticipate season-long weed suppression in established annual beds. For extended weed control (6+ months) when establishing new landscape plantings, consider using two layers. 18" diameter. Dark brown color. **NEW!**

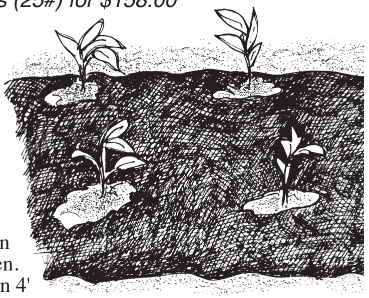


***8404 A**: five 18" circles (2#) for $4.75*
***B**: case of 50 circles (8#) for $46.00*



Hemp Tree Squares The magical medicine plant strikes again! These hemp-fiber squares block weeds and hold 5 times their weight in water to preserve moisture around the base of your young trees while you sit on the porch adjusting your attitude with other cannabis products if you'd like. Would also work well for other large plants, like tomatoes—or cannabis, for that matter. Simply slip the square around the base of your plant and secure two diagonally opposite corners with **8883-8884** Earth Staples. Easier and tidier to use than loose mulches; safe for humans, animals and the environment. Fully biodegradable, but quite rugged: expect them to last one or two seasons depending on soil and weather conditions. Will fully break down after three or four years. 18x18x1/2". **AYC**

***8405 A**: five 18" squares (2#) for $17.00*
***B**: case of 50 squares (25#) for $158.00*



Woven Ground Cover Thick commercial-grade UV-stabilized polypropylene fabric that deters stubborn weeds (like dandelions). This super-rugged fabric will last at least a decade if protected from photodegradation by a thin layer of wood chips, straw, hay or **8397** Buckwheat Hulls. Very resistant to tearing. Use around the base of trees, in perennial flower beds, or in permanent walkways in your garden. Allows water penetration. Comes in 4' and 6' widths. Material density: 3.2 oz/sq yd.

***8406 A**: 4x50' (4#) for $60.00* ***B**: 4x300' (35#) for $103.00*
***8407 A**: 6x50' (6#) for $90.00* ***B**: 6x300' (60#) for $156.00*

White-on-Black Plastic Mulch Upper white layer reflects sunlight back on the plants, increasing photosynthesis. Black lower layer blocks light to suppress weeds. Less solar energy is transmitted to the soil, keeping soil temperatures lower. Growers on the Vermont Vegetable and Berry Growers Association listserv report that white-on-black mulch repels thrips as well as reflective silver mulch does, while being easier on workers' eyes. Recommended for strawberries, onions, brassicas and lettuce. 1.0 mil. 4' wide.

***8412 A**: 4x50' (0#) for $17.50*
***B**: 4x250' (5#) for $41.75*
***C**: 4x4000' (80#) for $311.50*

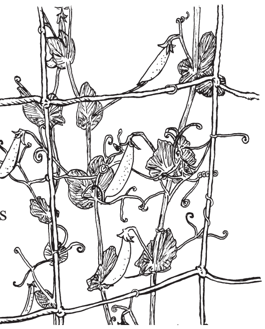
Embossed Black Plastic Mulch Good all-purpose plastic mulch for cool-weather areas. Excellent weed suppression. Increases soil temperatures by several degrees. Put down a few weeks before planting to allow the soil to soak up some heat. Embossed texture increases strength and minimizes tearing. Recommended for tomatoes, cucurbits and sweet corn. 1.0 mil. 4' wide.

***8418 A**: 4x50' (0#) for $14.25*
***B**: 4x250' (5#) for $37.75*
***C**: 4x2400' (50#) for $170.00*

IRT 100 Mulch **I**nfra**R**ed **T**ransmitting plastic suppresses weeds nearly as well as black mulch and lets infrared light through to warm the soil more quickly and to a higher temperature. For northern growers, IRT adds days to the growing season at both ends. Recommended for long-season squash, melons, peppers, eggplant and okra. 1.0 mil. 4' wide.

***8421 A**: 4x50' (0#) for $19.75*
***B**: 4x250' (5#) for $51.25*
***C**: 4x2400' (50#) for $266.50*

GARDEN & ORCHARD FABRICS



Jute Trellis Netting A netted grid of 6x6" squares for all your vertical (vining crops) and horizontal (flowers and cannabis) support needs. Made from the jute plant, *Corchorus* spp., which originated on the Indian subcontinent. Jute netting does not stretch, which is very advantageous for numerous applications. Some even wrap it around fruit trees to keep large birds and mammals from getting the ripe fruit. Withstands up to three seasons of use. Jute cultivation requires no pesticides, herbicides or fungicides, and it grows during the rainy season with little need for irrigation. The plants are hand-harvested instead of by machinery. Treated with food-grade vegetable oil. Made in India.

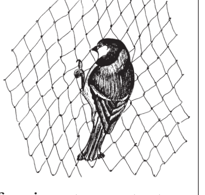
***8858 A**: 6.5x150' (8#) for $76.25*

Trellis Netting 7" reach-through nylon mesh with a strand strength of 60# for tomatoes, climbing beans, peas, cucumbers and luffas. Weave a strand of fence wire through the top for extra support. May also be used horizontally to provide support for plants at risk of lodging. Will last for many years if you can avoid "the tangles"!

***8859 A**: 5x30' (0#) for $18.25*
***B**: 5x60' (0#) for $30.50*

Easy-Drape Rip-Stop Bird/Critter Netting A Fedco customer requested this way-better bird netting that doesn't "make you want to attack anyone in your general vicinity whilst trying to untangle it." If you gather or weight it at the base of the plant, it can also keep out porcupines, squirrels and other garden meanies. Lasts significantly longer than other nettings; lifespan is 7–10 seasons, assuming you're using it for the 4–8 week fruiting season. The 16.4x16.4' size is suitable for bushes/shrubs/trees up to 6' tall, and the 32.8x32.8' size is suitable for trees up to 12' tall. To lift the edge over tall plants, duct tape grip clamps or clips to the ends of two long poles, clip in the netting, and work with a buddy to lift the piece over the plant. Knitted high-density UV-resistant polyethylene with ¾" diamond mesh is green. **NEW!**

***8861 A**: 16.4x16.4' (1#) for $26.50*
***B**: 32.8x32.8' (5#) for $84.75*



Bird-X® Orchard Netting Throw over trees or bushes and fasten to protect fruit or berries from birds, deer and possibly raccoons. Strong and durable black polypropylene ⅝" mesh with UV inhibitors.

***8862 A**: 7x20' (0#) for $11.75*
***B**: 14x14' (0#) for $12.00*
***C**: 28x28' (2#) for $41.00*

Deer-X® Protective Fencing Use as temporary fencing to protect plantings and fruit crops from deer, birds and other pests. Same durable black polypropylene ⅝" mesh with UV inhibitors as Orchard Netting above. Almost invisible mesh makes the fence startling to invading critters.

***8865 A**: 7x100' (0#) for $29.50*
***B**: 14x75' (2#) for $41.50*

Sisal Garden Twine Premium untreated 1-ply twine made from the sisal plant, *Agave sisalana*, which originated in Central America. The utility of this twine is endless (until you get to the end of the roll). A good companion to **8886** Biodegradable Tomato Clips for trellising vine crops; it's okay if the "jaws" on the clip can't bite the entire thickness of the twine; simply pull some of the strands of the twine away to have the clip bite a portion of them. Thrifty growers may get more than one year's use but don't count on that; whenever you're through with it, you can compost it. Comes in a 10# ball, 3000'. For best results, pull twine from inside the ball. Tensile strength 240 lb.

***8866 A**: 3000' (10#) for $51.25*

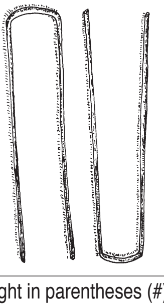
HEMP TWI
STRENGTH (2mm)

Hemp Twine Unwaxed hemp twine. Cut down vines along with the twine and compost the whole tangle. Tensile strength 48 lb, perfect for tying up plants and marking rows.

***8867 A**: 400' (0#) for $13.75*

Poly Garden Twine Strong cheap multipurpose white poly garden twine. 6300' of sheer usefulness in a cardboard box with handy belt slots so you can wear it instead of carrying it. Not biodegradable, so do remove it at the end of the season.

***8868 A**: 6300' (3#) for $13.75*

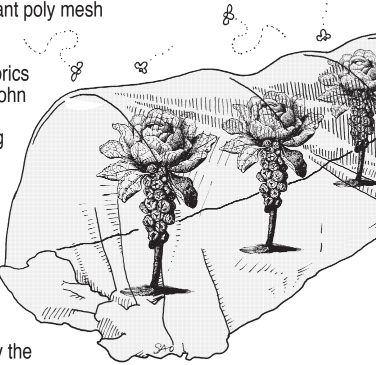


Earth Staples The garden seems full of rocks until you need one to anchor the row cover. Steel wire staples neatly hold down landscape fabric, row covers, irrigation line or fencing. We offer 6" and 9" size. The longer staples hold better in looser soils.

***8883 A**: 6" - bundle of 25 (0#) for $6.25*
***B**: 6" - bundle of 100 (4#) for $18.75*
***C**: 6" - case of 1000 (35#) for $105.00*
***8884 A**: 9" - bundle of 25 (0#) for $14.00*
***B**: 9" - bundle of 100 (4#) for $42.50*
***C**: 9" - case of 1000 (35#) for $314.50*

FLOATING ROW COVERS

When seeking pest protection, think of floating row covers and hoops first.



ProtekNet Exclusion Insect Netting Durable floating row cover that excludes all manner of insect pests. Also protects against birds, rodents, even deer. This knitted UV-resistant poly mesh eliminates the need for spraying insecticides and lasts way longer than the cheaper spunbonded fabrics like Covertan. OGS coordinator John Paul discovered insect netting in 2014, and he transitioned to using it wherever he could instead of spunbonded fabric. His crops performed better and it made the whole experience of growing vegetables easier and more aesthetically enjoyable. Many growers have switched to insect netting, and it's now one of our bestselling products. Use with **8880** Wire Hoops. If you bury the edges of netting with soil, do what you can to prevent weeds from growing through the buried edges.

ProtekNet 25-Gram Mesh size is 0.35mm x 0.35mm, small enough to exclude tiny guys like thrips, two-spotted spider mites and white flies. Knitted polyamide; density is 25 grams/square meter. Estimated lifespan is 2–3 years. Choose between 6'10½" wide, or **NEW!** 10' wide.

***8872 A**: 6'10½" x 20' (0#) for $40.50*
***B**: 6'10½" x 51' (2#) for $101.25*
***C**: 6'10½" x 205' (10#) for $275.50*
***D**: 6'10½" x 820' (35#) for $950.00*
***8873 A**: 10x20' (0#) for $45.75*
***B**: 10x51' (3#) for $105.50*
***C**: 10x205' (15#) for $360.00*
***D**: 10x820' (51#) for $1405.00*

ProtekNet 47-Gram Mesh size is 0.5mm x 0.75mm, small enough to exclude aphids, leaf hoppers, flea beetles, leek moths, spotted wing drosophila and swede midge. Knitted polyolefin; density is 47 grams/square meter. Estimated lifespan 4–5 years! **NEW!**

***8874 A**: 6'10½" x 20' (2#) for $39.75*
***B**: 6'10½" x 82' (6#) for $140.00*
***C**: 6'10½" x 328' (35#) for $470.00*

Covertan®-PRO 19 Floating Row Cover This spunbonded fabric is soft and pliable, UV-stabilized, offers about 4° of frost protection, and transmits up to 90% of sunlight. Use with **8880** Wire Hoops to protects crops from flea beetles, swede midge, cabbage worms, potato beetles, leafhoppers, even woodchucks. Provides a gently warmed, protected environment to get sensitive crops like melons and peppers established. Can last 2–3 seasons if you take care of it: remove it from the field as soon as possible, dry it out, and store it where rodents can't nest in it over the winter. Weighs 0.55 oz/sq yd.

***8876 A**: 7x50' (2#) for $27.25*
***B**: 7x250' (20#) for $93.00*
***C**: 7x1000' (35#) for $261.50*
***D**: 7x2000' (70#) for $465.00*

Clear Slitted Plastic Row Cover Place over **8880** Wire Hoops to form small tunnels, creating a greenhouse environment to promote the growth of heat-loving plants. Self-venting on hot days. On a sunny day the temperature under cover can average 10–30° warmer than outside air. Offers a few degrees of frost protection. Especially recommended for sweet potatoes and long-season peppers. Tears more easily than fabric row cover; use soil or sandbags to anchor it, not rocks or staples. Can be reused with care. 1.1 mil.

***8877 A**: 6x50' (2#) for $21.75*
***B**: 6x250' (10#) for $75.50*

Galvanized Wire Hoops For building tunnels with row covers. Most effective if spaced every 5' or less. "Hoops" are shipped as straight 74" flexible rods of 10-gauge wire. Stick one end in the ground and then stick the other end in at the desired tunnel width to form a hoop. (The shipping weights for the hoops reflect the cost of shipping these awkwardly long bundles.)

***8880 A**: bundle of 20 (45#) for $32.00*
***B**: bundle of 100 (50#) for $136.50*

ProtekNet versus Covertan for crop protection

Heat-loving crops like the extra warmth that spunbonded Covertan confers, and Covertan helps with frost protection. But for pest protection, durability and overall performance, consider investing in ProtekNet.

Advantages include:

- significantly better airflow, which boosts crop growth and reduces incidence of disease
- rain easily penetrates the netting; spunbonded fabrics block lighter rains from reaching the crop
- easy visibility through the netting so you can better monitor plants
- more light transmission through netting, thus more vigorous growth
- netting is stretchy for a neater, tighter fit than with spunbonded fabrics

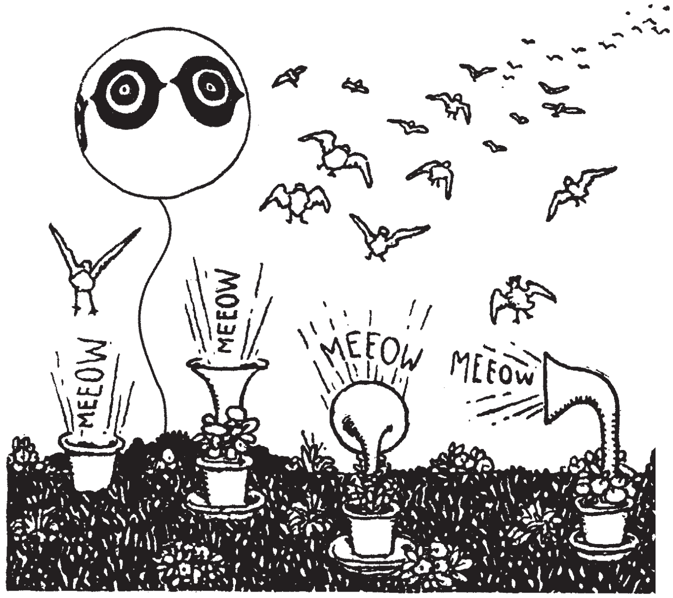
PLANT PROTECTION & PEST CONTROL

All these products, ranging from preventive measures such as bird-scaring balloons and flash tape, to last resorts such as copper or PyGanic, are commonly used in sustainable farming and gardening.

Also consider floating row cover for excellent protection from insects.

ORCHARD AND GARDEN PEST PATROL

The products in this section provide a degree of pest control and will help certified growers meet the requirements of rule 205.206 of the National Organic Program.



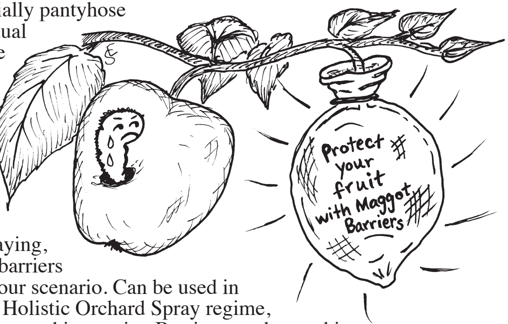
Bird-Scaring Balloon Successfully tested against some of Maine's toughest crows! Multi-colored strips around a menacing metallic eye. According to Cherokee artist Kade Twist, "The iconography on the balloon is indigenous iconography. It's called an 'open eye' and it's a pattern used from South America to Canada… Another thing is the colors. It just so happens that the balloons use Indian medicine colors." The "open eye" motif was reinvented in Japan as a bird-scaring device and is widely used there for that purpose. Our balloons are 14" in diameter and may deter birds from your sweet corn or blueberries. Most effective if moved around the garden from time to time. Protects a 15–20' radius. **Indigenous Royalties.**

8615 A: balloon (0#) for $12.50

Birdscare Flash Tape® Silver and red metallized 7/16"x290' plastic tape is a cost-effective way to protect crops from bird damage. Suspend tape in a loose spiral above the crop. Tape flashes and flickers in the wind to resemble fire. Very effective against flocking birds and crows, may also help keep raptors away from your chickens. Less effective against robins, sparrows and their ilk. Don't apply too early or birds may get used to the tape.

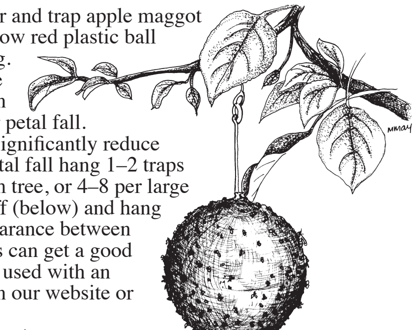
8618 A: flash tape (0#) for $8.75

Maggot Barriers for Tree Fruit Stretchable 100% nylon sleeves prevent apple maggot, codling moth and plum curculio from damaging tree fruits. Yes, these are essentially pantyhose coverings for individual apples, pears or stone fruits. This approach may seem like a bit of a "stretch," but when you consider how much time, energy and material inputs go into managing insect pests with spraying, it may be that nylon barriers are better-suited to your scenario. Can be used in conjunction with the Holistic Orchard Spray regime, which boosts tree vigor and immunity. Barriers can be used in other creative ways to block birds, rodents and deer from pecking, gnawing or stealing the goods of fruiting crops of any kind. Apply barriers when fruitlets are less than 1" in diameter and leave plenty of sleeve beyond the tip of the fruit to allow for growth. Then twist neck of sleeve tightly and seal around the stem with twist ties or clips. Made in the USA, these earthtone barriers are re-usable. Heavy weave and reinforced seam; outperforms others on the market.


Protect your fruit with Maggot Barriers

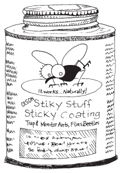
8626 A: 100 barriers (0#) for $16.50

Red Ball Trap Use to monitor and trap apple maggot flies. Sturdy 3½" reusable hollow red plastic ball with hook and wire for hanging. For monitoring purposes, place several traps along the southern perimeter of your orchard after petal fall. Check traps twice weekly. To significantly reduce apple maggot damage, after petal fall hang 1–2 traps per dwarf tree, 2–4 per medium tree, or 4–8 per large tree. Coat traps with Stiky Stuff (below) and hang about eye-level with 18" of clearance between them and any foliage so insects can get a good look at them. More effective if used with an apple maggot lure (available on our website or in the **8636** Apple Pest Kit.)



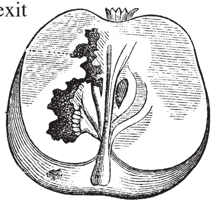
8627 A: ball trap (0#) for $6.50

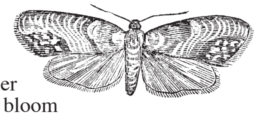
Stiky Stuff All-weather adhesive used to coat red balls for monitoring and trapping insect populations. Sticky and odorless coating. To remove, use a blunt scraper and wipe with a paper towel or rag after each swipe. Then massage in mineral spirits, baby oil or CitraSolv with a cloth and wipe off. 8 oz covers approx. 2 sq ft, which our staff geometer calculates will coat at least 7 red ball traps. **AYC**



8630 A: 8 oz (0#) for $15.00

Codling Moth Trap and Lure Codling moth (*Cydia pomonella*) is a pest that damages fruit of apple, pear, walnut and quince. It is *the* "worm in the apple." The larva (caterpillar stage) typically bores through the end of the fruit, eating its way to the center and then eating an exit route that fills with frass. Codling moths go through two generations per year in most regions of the U.S. The first generation can contribute to fruitlets falling during "June drop." The second generation damages fruit but does not induce dropping, so affected fruit must be culled at harvest. The sex pheromone lure attracts males only; use for monitoring (as opposed to reducing population and fruit damage). When moths start to collect in the traps, that is the time to start spraying an organic insecticide: *Bacillus thuringiensis* (**8753** DiPel or **8756** Safer Caterpillar Killer) or Spinosad (**8762** Monterey Garden Insect Spray). Use 1–2 traps per tree, depending on the size of the tree. Set out at bloom time and keep traps in trees through August, replacing every 4 weeks. Installation instructions included. Set of 2 traps and 2 lures.

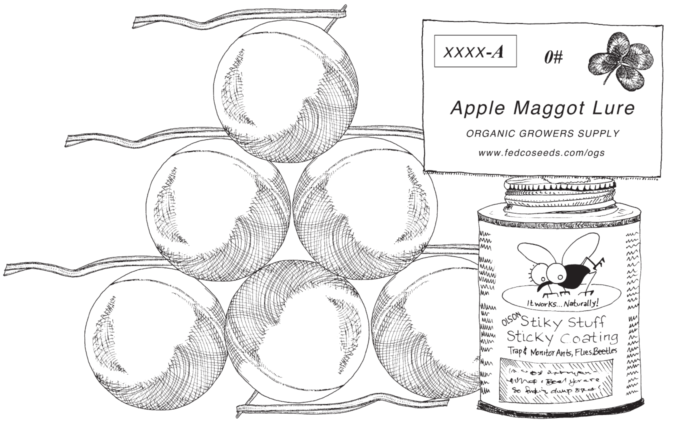




8646 A: traps and lures (0#) for $23.75

Yellow Sticky Strips Conventional and organic growers alike commonly use sticky strip traps as part of their integrated pest management programs, to monitor the presence and population level of insect pest species to determine when populations are high enough that crops will suffer significant damage and treatment will be economically justifiable. Used in high concentrations on small plantings, sticky strip traps can even control pests all by themselves. These yellow traps are for aphids, cucumber beetles, fungus gnats, corn root worms or whiteflies; for apple and blueberry maggots, use with ammonium bait enhancers, available on our website.

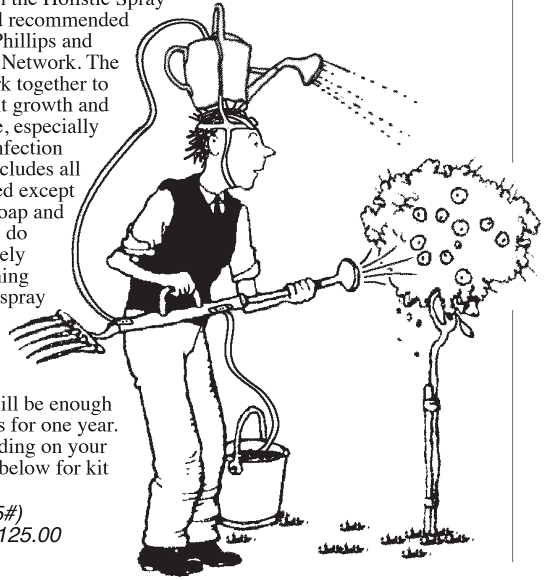
8648 A: yellow sticky strips, bundle of 10 (0#) for $22.50



Apple Pest Kit Six red ball traps, one apple maggot lure and a jar of Stiky Stuff. Provides pest *monitoring* for a small orchard, or pest *management* for 1–3 trees.

8636 A: kit (5#) for $45.00

ORCHARD AND GARDEN HEALTH



Holistic Orchard Spray Kit To promote the health of your home orchard, this kit contains: 1 gal fish hydrolysate, 1 qt neem oil, 1 pint karanja oil, 1 qt EM-1 (effective microbes) and 2 pints Kelp Liquid Concentrate. These are the key ingredients in the Holistic Spray recipe developed and recommended by the late Michael Phillips and the Holistic Orchard Network. The five components work together to enhance tree and fruit growth and help ward off disease, especially during the primary infection window in spring. Includes all the ingredients needed except biodegradable dish soap and molasses (though we do sell molasses separately on page 135). Assuming a rate of ~1½ gal of spray to cover a mature tree on standard rootstock to the point of runoff, the amounts in this kit will be enough to cover about 7 trees for one year. This will vary depending on your situation. Please see below for kit instructions.

***8657 A**: kit (25#) for $125.00*

Holistic Orchard Spray Kit Guide

The renowned organic orchardist and author Michael Phillips recommended a "holistic" spray regimen to help prevent disease and enhance both tree and fruit growth. For a more detailed discussion of these ingredients and how they work together to serve your fruit trees, see Phillips' book *The Holistic Orchard* (**9624**).

Fish Hydrolysate (8289): Feeds soil and arboreal food web.

Neem Oil (8660): Deters pests and disrupts their life cycles. Neem also stimulates the tree's immune system, gives nutrients to foliage and feeds the arboreal food web. Caution: pears can have a phytotoxic response to neem oil, especially after bloom, so substitute with karanja oil if you're spraying lots of pears.

Karanja Oil (8663): Works synergistically with neem. Enhances immune-boosting phytochemistry of the mix. Also deters foliar-feeding pests like aphids without affecting pollinators.

EM-1 (8185): A probiotic inoculant that colonizes the branches and fruit with beneficial microbes to promote fruit growth and disease resistance. See our website (fedcoseeds.com/ogs) for instructions to "activate" EM-1.

Kelp Liquid Concentrate (8270): Promotes growth and helps trees adapt to stress.

RECIPE:

Makes a 4-gal ready-to-spray batch. Please read through the Spray Schedule below, and note that not all ingredients are used in every application. Mix in a 5-gal bucket in this order:

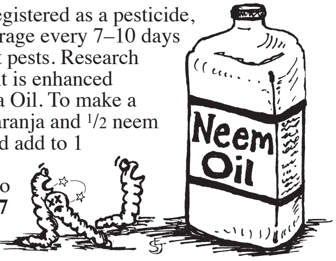
– ¼ cup (2 fl oz) Neem Oil—warm up to liquefy.
– 2 Tablespoons Karanja Oil
– 1 teaspoon biodegradable dish soap—stir to emulsify neem.
– 1 quart warm water
– ½ cup blackstrap molasses (then stir again)
– 1¼ cups Fish Hydrolysate
– 3 Tablespoons Kelp Liquid Concentrate
– 1¼ cups activated EM-1
– Add water until you reach the 4 gallon mark, then stir one last time.

SPRAY SCHEDULE:

Coat trees including the trunks to the point of runoff, about 1½ gal per mature fruit tree. We recommend using the **9231** Solo Backpack Sprayer (p. 157). Treat this schedule as a starting point; every site is different and requires a custom program. For example, trees with cedar apple rust or brown rot issues require additional spraying for effective management.

1. When green leaf tips emerge: Fish, neem, karanja, EM-1 and kelp (all ingredients). Optional: Fish, neem and karanja rates can be doubled for this first spray, except on pears.
2. When buds turn pink: All ingredients.
3. When blossoms open (optional): ONLY EM-1, kelp and half-portion of karanja. To help prevent apple scab and fireblight, to increase Brix, and to attract pollinators.
4. When petals fall: All ingredients.
5. 7–10 days after petals fall: All ingredients.
6. Post-harvest, after about half the leaves have fallen: Fish, neem, karanja and EM-1. Spray trees as usual, but also aim at the ground to hasten leaf decomposition.

Questions? Send an email to: ogs@fedcoseeds.com



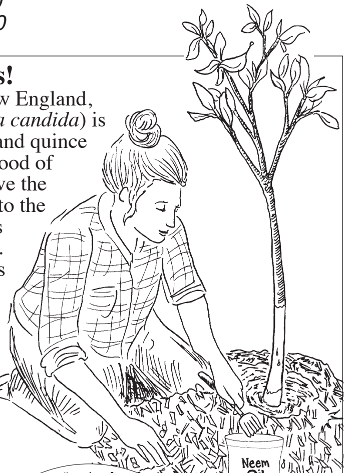
Neem Oil - Organic Promotes the health and vitality of trees and plants. Neem has long been recognized for its antifungal, antibacterial and antiparasitic properties. Neem's azadirachtin content deters a wide range of insect pests, disrupts their life cycles, and often leads to their mortality. For a processed neem product registered as a pesticide, see **8735** AzaMax. Spray for full leaf coverage every 7–10 days as needed for suppressing disease or insect pests. Research indicates that pest and disease management is enhanced when neem oil is mixed with **8663** Karanja Oil. To make a spray, mix 1 oz warmed neem oil (or ½ karanja and ½ neem oil) with 2 tsp biodegradable dish soap, and add to 1 gal lukewarm water. Avoid spraying neem when bees are pollinating as it is harmful to larvae and developing grubs. Also see **8657** Holistic Orchard Spray Kit. **MOFGA**

***8660 A**: quart (3#) for $27.50*
***B**: gal (10#) for $90.00*

Ahimsa Organics® Karanja Oil Eastern tradition and Western utilitarianism meet again! Enlightened growers of veggies, fruits and medical ganja value karanja oil for its noteworthy pest- and disease-fighting properties. Pressed from the seed of the pongam tree of India, the oil is rich in several bitter flavonoids that stimulate plant immune function. Numerous studies have shown the oil to prevent many pests from feeding and laying eggs and to kill pests such as mites, aphids and leafminer larvae. Studies also show karanja works synergistically with a number of pest management sprays especially **8660** Neem Oil to significantly improve their efficacy, and it lasts longer on plants than other botanical insecticides. Michael Phillips strongly recommended using karanja in the Holistic Orchard Spray regime. It may be used instead of neem for plants like pear trees that can have a phytotoxic response to neem oil. It's also safer for bees, containing no azadirachtins. Furthermore, karanja remains a liquid at 40° or colder, making it easier to mix than neem. Very safe to handle and spray. To make a spray, mix 1 oz karanja oil (or ½ karanja and ½ neem oil) with 2 tsp biodegradable dish soap, and add to 1 gal lukewarm water. **OMRI**

***8663 A**: quart (3#) for $35.00*
***B**: gal (10#) for $120.00*

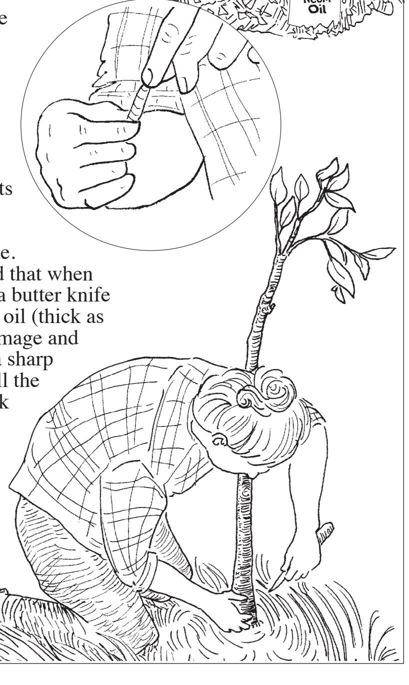
Neem to Treat for Apple Borers!



In many parts of central and northern New England, the roundheaded appletree borer (*Saperda candida*) is the #1 enemy of young apple, crabapple and quince trees. The larvae tunnel throughout the wood of the trunk—usually just below or just above the soil or mulch line—weakening the trunk to the point of breakage. Left unchecked, borers usually mean death for young apple trees. We're grateful to the late Michael Phillips for identifying an effective, organic, nontoxic, easy defense for plantings large and small: pure neem oil.

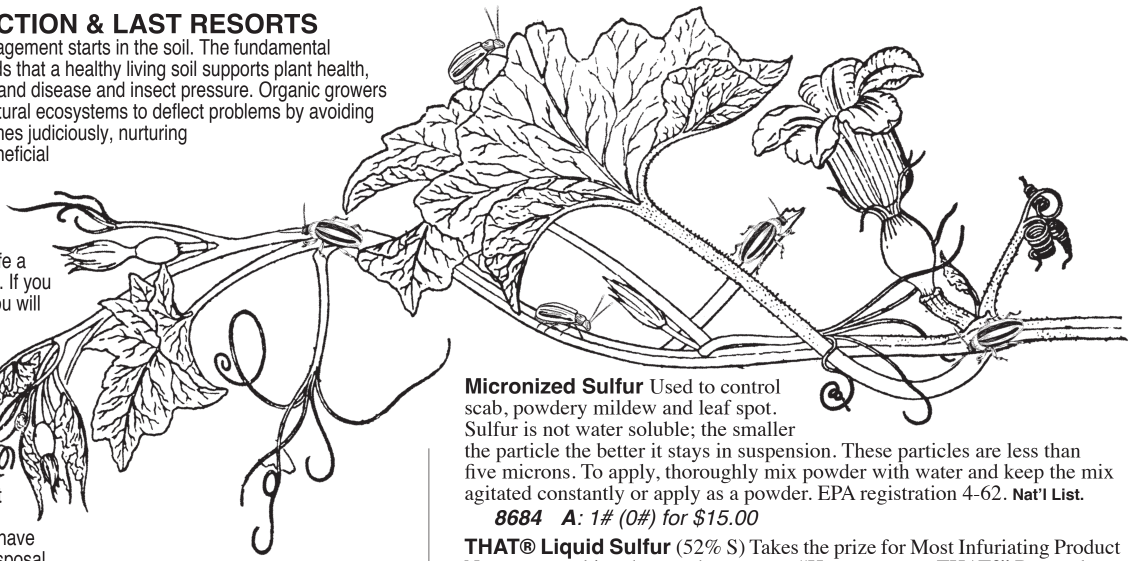
All you need is a paintbrush and undiluted neem oil warmed to liquify. Cover young tree trunks from the soil line up 12". We apply one time only around July 1.

Although neem is a powerful tool in the battle against borers, we still recommend getting on your hands and knees to inspect your young apple trees for frass and tunnels at least once a year. If you notice evidence of borer activity, locate the hole or soft spot in the trunk and dig out the larva with a wire. Cut away soft spongy pockets with a sharp knife. Even serious carving is less harmful to the tree than leaving any larvae alive inside.



Michael Phillips recommended that when you're on borer duty, bring along a butter knife and a container of solidified neem oil (thick as butter at 60°). If you find borer damage and cut away the affected tissue with a sharp knife, slather on the neem oil to fill the cavity. According to Phillips, "bark tissues and pores in the wood will carry azadirachtins to the borer (if indeed missed), and arrest its further development…the fats in the neem will hasten callusing of the wound." If the site of this surgery is near the soil line, cover it with soil, and "know you've done everything possible to deter this curse."

PLANT PROTECTION & LAST RESORTS



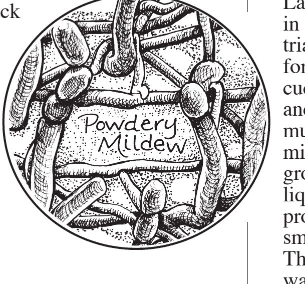
As with so many things, pest management starts in the soil. The fundamental premise of organic agriculture holds that a healthy living soil supports plant health, and healthy plants can best withstand disease and insect pressure. Organic growers also try to mimic and work with natural ecosystems to deflect problems by avoiding monoculture, choosing planting times judiciously, nurturing paradisiacal hedgerows where beneficial insects may flourish, creating strains of tomato impervious to late blight in meticulously designed on-farm breeding programs, and generally making life a living hell for pathogens and pests. If you do all this perfectly, we promise you will never need to touch a pesticide.

Except when you do. Because sometimes, you might. It can take years to build top-quality garden soil, and sometimes, despite all your best-laid plans, some aspect of management falls through the cracks and problems arise that may threaten your pantry or your livelihood. So organic growers do have an arsenal of pesticides at their disposal.

Pesticides approved for organic production differ from most pesticides in that they are derived from natural materials and—perhaps more importantly—they are less persistent (some conventional pesticides have half-lives measured in years) and less toxic (while you should always read and follow label instructions and avoid breathing, ingesting, or bathing in pesticides, you don't need to dress like a beekeeper-alien hybrid to use organic pesticides). If potato beetles are blowing the battle trumpet at your garden's gate, find your answering battle cry below.

Products in this section come with detailed instructions on their labels. Contact us if you don't receive the attached booklet or if the label is illegible. It is illegal to use pesticides for off-label purposes or without following label precautions.

We cannot ship any pesticides to California. Their state government wishes to charge us an ungodly amount of money to do so.



MilStop® SP Broad Spectrum Foliar Fungicide. A potassium bicarbonate formulation to prevent powdery mildew, Alternaria blight, Anthracnose, black spot, Botrytis blight, Cercospora leaf spot, downy mildew, Phomopsis blight and Septoria leaf spot. Effective against sooty blotch and flyspeck on apples. Provides curative control of powdery mildew as well! Apply at 2½#/acre every two weeks as a preventive, 5#/acre weekly to cure an existing infestation of powdery mildew. Garden rate: 2–4 Tbs/2 gal water for 1000 sq ft. Works by desiccating fungal spores and altering pH levels on the leaf surface. Safe for bees. EPA reg. 70870-1-68539. **OMRI**

***8666 A**: 5# for $99.50*

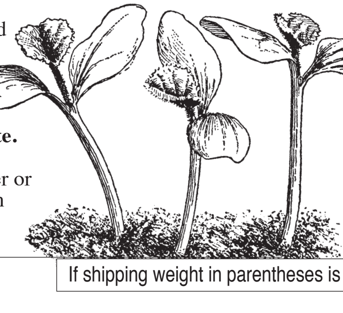
Bonide® Liquid Copper Concentrate A copper fungicide for the home gardener. Copper is a very effective fungicide, but regular use may result in problematic concentrations of copper in the soil or plant tissue: as always, we advise regular soil testing! The recommended dosage is 1½–2 oz/gal water. Apply enough to wet the whole plant thoroughly: not systemic, requires direct contact to work. Repeat application every 7–10 days and increase the dosage in prolonged wet periods or if signs of disease increase. **Please visit our website for other copper products for commercial-scale producers.** EPA reg. 67702-2-70051. **AYC**

***8672 A**: pint (3#) for $29.75*

USDA NOP rule concerning disease and pest control

Caution certified-organic growers:
Before using any of these products for pest or disease control, you must have followed the National Organic Program rule 205.206(e). A product being labeled here as allowed is not sufficient to meet standards for organic certification.

Is that pesticide registered in your state?



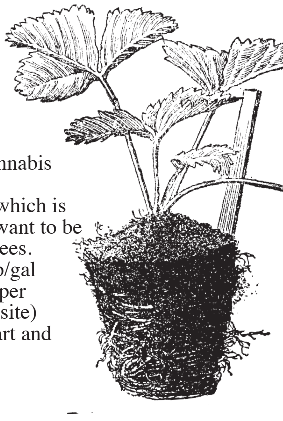
Each state treats potentially dangerous items differently. Like alcohol and open-carry laws, pesticide registrations are different everywhere. We cannot ship a pesticide to a state where it is not registered. Before buying or using any pest- or disease-control product, be sure it is registered for use in your state and, if you are a commercial grower, registered for commercial production. Purdue University has information for most states at **state.ceris.purdue.edu/.** You may look up products by name, registration number or active ingredient. Contact information is provided for states that don't participate in the website.

Micronized Sulfur Used to control scab, powdery mildew and leaf spot. Sulfur is not water soluble; the smaller the particle the better it stays in suspension. These particles are less than five microns. To apply, thoroughly mix powder with water and keep the mix agitated constantly or apply as a powder. EPA registration 4-62. **Nat'l List.**

***8684 A**: 1# (0#) for $15.00*

THAT® Liquid Sulfur (52% S) Takes the prize for Most Infuriating Product Name—try asking the warehouse crew "Have you seen THAT?" But we keep it around because it is easier to use in sprays and suspensions than micronized sulfur. Two to four well-timed applications can be effective on apple scab when combined with good orchard sanitation practices. Each gallon contains 6# sulfur. EPA reg. 57538-5. **AYC**

***8690 A**: 2.5 gal (25#) for $99.75*



Regalia® and **Regalia CG Biofungicide** Put invasive plants to good use! Regalia's active ingredient is extract of giant knotweed (*Reynoutria sachalinensis*), an aggressive plant invader in many countries around the world. Sprayed on your crops, it induces systemic resistance, stimulating biochemical pathways that strengthen the plant structure to fight pathogenic fungi. Reapply on foliage every 7–10 days to protect new growth. May also be applied as a soil drench or through drip irrigation to improve root quality and protect against soil-borne pathogens. Labeled for a broad range of fungal diseases in most edible crops. Various university trials have shown Regalia to be effective for downy and powdery mildew in cucurbits; bacterial spot, septoria leaf spot and powdery mildew in field tomatoes; mummy berry in blueberries; and powdery mildew and Botrytis bunch rot in grapes. Cannabis growers use it as a drench administered with liquid nutrients to prevent fungal problems, which is probably a good idea since you really don't want to be smoking copper-based fungicides. Safe for bees. The average recommended dilution is 2 Tbsp/gal water per 1000 sq. ft, or 2–4 qt/65 gal water per acre, but consult the label (found on our website) for application-specific guidance. **NEW!** quart and gallon sizes. EPA reg. 84059-3. **OMRI**

***8692 A**: quart (#3) for $81.25*
***B**: gallon (10#) for $169.50*
***8693 A**: 2.5 gal (25#) for $350.00*

Monterey Complete Disease Control Ready-to-Use Biofungicide/ Bactericide *Bacillus amyloliquefaciens* formulation for broad-spectrum control of bacterial and fungal diseases on vegetables, fruits, nuts, ornamental trees, shrubs, flowering plants, houseplants and tropical plants grown in and around home gardens or home greenhouses. Not for commercial use. Effectively controls anthracnose, alternaria leaf spot, botrytis, cercospora and powdery mildew. Also helpful for downy mildew, early blight, late blight, fire blight and scab, though unlikely to offer a complete cure for these problems. EPA Reg. 70051-114-54705 **OMRI**

***8709 A**: quart RTU (3#) for $18.00*

Cease® Biological Fungicide We had to nix Serenade because we don't want to give money to Bayer; Companion was great but then the manufacturer went into some endless relabeling process and we couldn't get it. Cease has the same great active ingredient (in this case the QST 713 strain of *Bacillus subtilis*) but packaged as an aqueous suspension. A broad-spectrum preventive product for the control or suppression of many important plant diseases. May be used as a foliar spray or as a drench at 1 gal/100 gal water/acre. EPA Reg. 264-1155-68539. **OMRI**

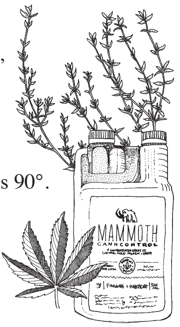
***8710 A**: gal (10#) for $111.00*

Organic JMS Stylet-Oil® High-grade mineral oil for control of powdery mildew, scale, mites and other insects on trees and vegetables. Use as a dormant or summer oil. Kills mildew on contact and protects sprayed surfaces for 10–14 days. Controls plant-feeding mites, leafhoppers, leafminers, fall army worms and corn earworms. Spray at 3 qt–2 gal/100 gal water depending on application. EPA reg. 65564-1. **OMRI**

***8711 A**: gal (10#) for $58.25* ***B**: 2.5 gal (25#) for $98.50*

If shipping weight in parentheses is (0#), the item qualifies for free shipping!

Mammoth® CannControl After our mammoth multi-year search for a high-caliber plant-based fungicide and insecticide, the thyme has finally come! For use on cannabis and other annuals; from the makers of **8180** Mammoth P. Lab and greenhouse tests show CannControl to prevent and eliminate powdery mildew, *Botrytis cinerea* (gray mold), mites, aphids, whiteflies, thrips and fungus gnats. The active ingredients—15% thyme oil, 55% corn oil—are safe to handle, and the product can be used weekly through the season as a foliar spray or root drench to keep fungal and insect pests at bay. As a preventive, use 1 fl oz per gal water. To address an active infestation or infection, increase the mix rate to 3 fl oz per gal water. We recommend first testing your solution on a few leaves and observing for 2 days; discontinue use if you see signs of burning. Do not use it on newly planted cuttings or on plants stressed by drought, and avoid application when temp exceeds 90°. Stop applications 2–3 weeks prior to harvesting your crop to ensure all the oil has broken down. As with any horticultural oil, do not apply this product when bees are actively foraging, and avoid applying within 30 days of sulfur-based fungicides. Exempt from EPA registration. **MOFGA** **NEW!**



***8712 A**: 500ml (1#) for $38.50*

Dodging an un-fun guy

Whether it's *Fusarium* and *Pythium* lurking in your soil, or powdery mildew and late blight blowing in on the wind, pathogenic fungi can cause poor germination, stunted growth, reduced yields, inferior eating quality, cosmetic blemishes, poor storability and melancholy.

Organic growers have a number of strategies for preventing or treating outbreaks of fungal disease. For economy, efficacy and environmental safety, it helps to understand your options.

Cultural Prevention

First try to manage fungal problems without reaching for pesticides:

- Choose improved crop varieties that are resistant to disease.
- Choose high-quality brands of potting soil and compost.
- Do not put diseased plant material in your compost pile.
- Give plants adequate spacing for good airflow through the vegetation. This includes proper weed control. For trees, cannabis and a few horticultural crops (like tomatoes), pruning helps to maintain good airflow.
- Choose drip irrigation instead of overhead irrigation to reduce moisture on the leaves. Or in smaller gardens, hand-water close to the surface and avoid over-watering.
- Clean your tools and greenhouse surfaces. High-quality potting soil very rarely carry pathogens, but even clean potting soil is easily contaminated by dirty tools, trays or workbenches.

Preventive Treatments

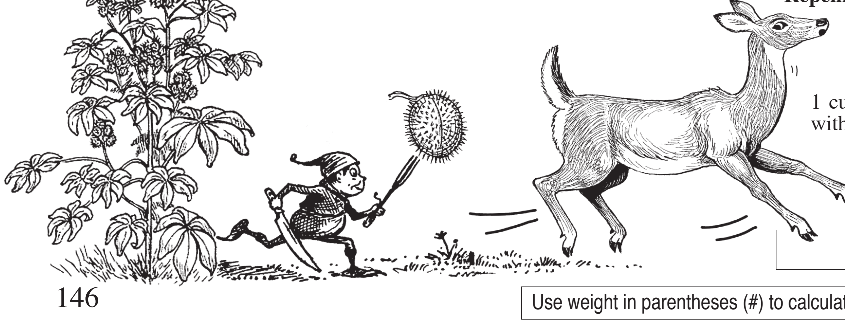
If you've been hammered by *Botrytis* a couple years running, or if your extension office is reporting late blight in your area, it may be time for a sharper weapon. Many organic fungicides work best as preventive treatments; timely applications will prevent a problem, but by the time you see the first slimy leaves it's too late. These products are more environmentally friendly than control treatments:

- Biological controls (such as **8710** Cease) have two primary modes of action. They may colonize the leaf surface and outcompete pathogens; or they may produce exudates that are directly harmful to the pathogens.
- Giant knotweed extract (**8692-8693** Regalia) stimulates the plant's immune system.
- Elemental sulfur (**8684** Micronized Sulfur or **8690** THAT Liquid Sulfur) prevents spore germination. (Some plants, including cucurbits, are sensitive to sulfur.)

Control Treatments—the last resort.

The pumpkin leaves are crumpling and the dreaded "water-soaked lesions" of late blight have appeared on the potatoes—quick, do something! (Or throw in the towel and take a vacation.)

- Potassium bicarbonate (**8666** MilStop) kills pathogens and spores by a combination of osmotic pressure, pH and specific carbonate and bicarbonate ion effects. Most effective as a preventive, but may have curative control of powdery mildew.
- Copper products, such as **8672** Bonide, are the only pesticides permitted in organic production that can cure an existing outbreak of most fungal diseases. Copper products should be used only as a last resort: they are mildly toxic to bees and should not be applied to flowering plants, and repeated use of these products can cause an unhealthy buildup of copper in your soil, which is difficult to reverse.



ThermX™ 70 Soil Conditioner Natural Wetting Agent A wetting agent and spreader-sticker, made from a liquid concentrate of 70% yucca solids. Increases the longevity and effectiveness of pesticide applications and forces hydrophobic potting media (like dry peat moss) to more readily absorb water. Use in your foliar feeding program to improve the absorption of nutrients and increase resistance to stress. Mix 8 oz/100 gal. It foams a lot, so add as the last ingredient to a tank mix. Toxic to fish in high concentrations. **OMRI**

***8714 A**: quart (3#) for $46.75*

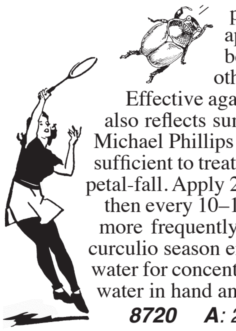
Miller® Nu Film® P Spreader/Sticker Spreader-stickers increase the longevity and effectiveness of pesticide applications. Forms a sticky elastic film that holds the application in contact with leaf surfaces. Can withstand heavy rainfall for 7–10 days, reducing the need to reapply. Will not clog or foam. May be applied to all crops and in all spray applications, 4–6 oz/100 gal water. **OMRI**

***8717 A**: gal (10#) for $121.50*

Concern® Diatomaceous Earth Crawling Insect Killer Prehistoric tiny aquatic creature skeleton powder! The sharp edges cut into insects' bodies and cause death by dehydration. Insects cannot develop resistance to this mode of action. Especially popular for cutworm protection: just sprinkle around the base of your seedlings. Also useful for ants or fleas indoors. EPA reg. 50932-12. **OMRI**

***8719 A**: 4# for $30.75*

NovaSource Surround® WP Crop Protectant 95% kaolin clay, but this ain't your mama's pottery-grade kaolin. It undergoes a patented process of centrifuging and filtering that delivers a critical particle size of 1.4 microns and a pure white color. Prevents insects from recognizing their targets, and, if they land, inhibits their access to the plant's surface and causes irritation and excessive grooming. Particle sizes larger than 1.4 microns do not form an effective barrier to insects, and impurities in unrefined kaolin may injure plant health. Recommended for controlling European apple sawfly, codling moth, plum curculio, Japanese beetle, leafhopper, Colorado potato beetle, thrips and other maleficial insects on fruit crops and field crops. Effective against cucumber beetles on cucurbits. The white surface also reflects sunlight, preventing sunburn and heat damage. The late Michael Phillips of Lost Nation Orchard estimated that one 25# bag is sufficient to treat 10 fruit trees for one season. Begin application before petal-fall. Apply 2–3 times the first week to build up a good coating and then every 10–14 days or as the film weathers or new growth appears, more frequently in rainy weather. Maintain a good coat until plum curculio season ends, around June 30 in central Maine. Use 25#/50 gal water for concentrated use; 25#/100 gal water for diluted spray, 1/2#/gal water in hand and backpack sprayers. EPA reg. 61842-18. **OMRI**



***8720 A**: 25# for $91.50*

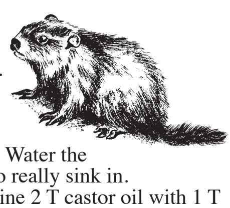
Deer Stopper® A mixture of rotten eggs and essential oils deters deer by taste and smell. Dries clear and odor free (to human noses) and will not wash off in the rain. Lasts up to 30 days. Also good for marking the perimeter of gardens. May be applied in any climate or weather as long as the sprayer does not freeze and clog. Apply directly to ornamentals; on edible crops, apply as a perimeter spray. Dilute 1:9 with water. Exempt from EPA registration. **MOFGA**

***8723 A**: quart (3#) for $45.00 **B**: gal (10#) for $139.00 ★*

Castor Oil - Organic Widely known to effectively repel burrowing mammals like moles, voles, gophers, rabbits, ground squirrels and armadillos. Local farm advisor Mark Fulford recommends castor oil for keeping deer away from fruit trees. May also be sprayed on young tree trunks to prevent mice and voles from girdling bark. We bring you this potent oil in its pure form because it is much cheaper and more versatile than granular castor oil products. See sidebar below for application rates. **AYC**

***8725 A**: quart (4#) for $15.75 **B**: gal (10#) for $45.25*

Castor oil for repelling critters



Deterring burrowing animals: Best applied after a few fall frosts but can be used year-round.

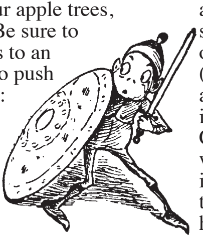
- For larger areas use a hose-end sprayer. Combine 8 fl oz castor oil with 4 fl oz biodegradable dish soap. Add to the sprayer's container, and turn the dial to the highest setting. Water the problem area thoroughly, allowing the solution to really sink in.
- For smaller areas use a watering can. Combine 2 T castor oil with 1 T biodegradable dish soap. Mix with 1 gal water. Water thoroughly.

Repelling deer: A strong batch must be sprayed directly on the trees every month or at first sign of nibble during the fast-growth period, but avoid spraying during especially warm summer weather. Can also be sprayed on young trunks to prevent girdling by voles or mice.

- Combine 3 cups castor oil, 1 cup **8289** Fish Hydrolysate and 1 cup biodegradable dish soap; mix well to create a creamy emulsion with no oil bubbles at the surface.

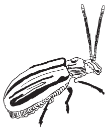
During summer months, mix the emulsion into at least 5 gal lukewarm water, and apply with a backpack sprayer. (When first using the spray, test it on small area to make sure the dilution and sprayer are calibrated correctly and don't burn the foliage!) During months when the trees have no foliage, mix the emulsion into 4 gallons of lukewarm water.

MoleMax® Mole & Vole Repellent 10% castor oil in a base of fuller's earth. Whether you have moles tunneling in your lawn, groundhogs eating their way through your vegetable garden, or voles girdling your apple trees, this is a simple but effective tool against damaging varmints. Be sure to follow the package instructions! Start by applying the granules to an area unaffected by the pests, and then expand the application to push them out of the area you wish to protect. Rodents are stubborn: may require regular applications for continued effectiveness. One bag protects up to 5000 square feet. If armadillos are a problem for you, it supposedly works against them, too. Exempt from EPA registration. **AYC**



***8726 A**: 10# for $28.50*

General Hydroponics AzaMax® Botanical Insecticide/Miticide/Nematicide with azadirachtins A & B derived from neem oil. AzaMax is more processed than **8660** Neem Oil, but this liquid mixes more easily and is registered as a pesticide. Broadly labeled for most insects and parasitic nematodes on edible and non-edible crops. Offers rapid knockdown of spider mites and cucumber beetles: same quick effects as **8765** PyGanic, but with a lower price tag and less toxic to bees. Mix at 1–2 oz/gal water and apply as a foliar spray or a drench. 4 oz size is not labeled for commercial use. EPA reg. 71908-1-81268. **OMRI**



***8735 A**: 4 oz (0#) for $47.25 **B**: quart (3#) for $193.00*

Safer® Brand Insect Killing Soap Concentrate II Biodegradable contact insecticide effectively controls mites, aphids, earwigs, lace bugs, leafhoppers, mealybugs, scale, spider mites, thrips, tent caterpillars and whiteflies. Fatty acids penetrate insects' soft outer membranes and disrupt normal functions. Use approx. 2½ oz/gal water. Hard water can reduce soap's effectiveness; if your tap water is hard, use distilled water instead. EPA reg. 42697-60. **OMRI**

***8738 A**: pint (3#) for $23.00*

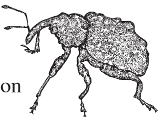
Monterey Sluggo® A blend of iron phosphate, a naturally occurring soil mineral, with snail and slug bait. Many species of snails and slugs are attracted to the bait, leaving their hiding places and plants to feed. When they ingest even small quantities of iron phosphate, they cease feeding and die a few days later. Damage reduction is almost immediate. Scatter the granules on the lawn or around plants or in the soil around trees and shrubs. Ground or lawn should be moist when applying. Apply at 1#/1000 sq ft, 1 tsp/sq yd. Reapply as the bait is taken. EPA reg. 67702-3-54705. **OMRI**

***8741 A**: 1# (0#) for $12.50*
***B**: 5# for $37.50*

Monterey Sluggo® Plus Insect, Slug & Snail Pellets. The addition of a small amount of spinosad (0.07%) greatly increases the effectiveness and scope of Sluggo. Apply evenly ½–1# per 1000 sq ft to control slugs, snails, earwigs, cutworms, crickets, sowbugs, pillbugs and some species of ants. Best applied in the evening to catch the late diners. EPA reg. 67702-24-54705. **OMRI**

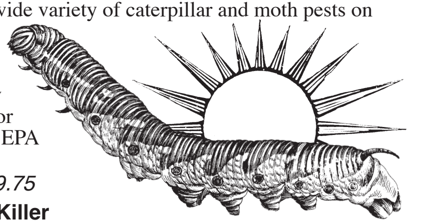
***8744 A**: 1# (0#) for $16.25 **B**: 5# for $48.50*

Grandevo® CG Water Dispersible. A dry formulation of the bacterium *Chromobacterium subtsugae*. A grand addition to your pest-fighting arsenal. Reduces plant damage from sucking and chewing insects, including tough customers like spotted wing drosophila, plum curculio, apple maggot, codling moth and spider mites. Also effective on Colorado potato beetle in the larval stage, but won't deter the adults. Faster-acting than most biological products: stops feeding activity within one minute of exposure. It is toxic to these insects when ingested; non-toxic doses will reduce reproduction rates. Repels pollinators for up to six days after spraying, but is not acutely harmful to them. Mix 2–4 Tbs in 1 gal water and cover vegetation thoroughly. 1# treats 5000–15000 sq ft. EPA reg. 84059-27. **OMRI**



***8750 A**: 1# (0#) for $69.00*

DiPel® DF Biological insecticidal dry flowable wettable powder. Commercial strength Bt (*Bacillus thuringiensis* subsp. *kurstaki*), approx 32,000 IU/mg. Labeled for a wide variety of caterpillar and moth pests on practically every agricultural crop there is. Best applied in the afternoon as Bt breaks down in direct sunlight. Apply at ¼–2# per 100 gal per acre or ½–4 tsp per gal per 500 sq ft. EPA reg. 73049-39. **OMRI**



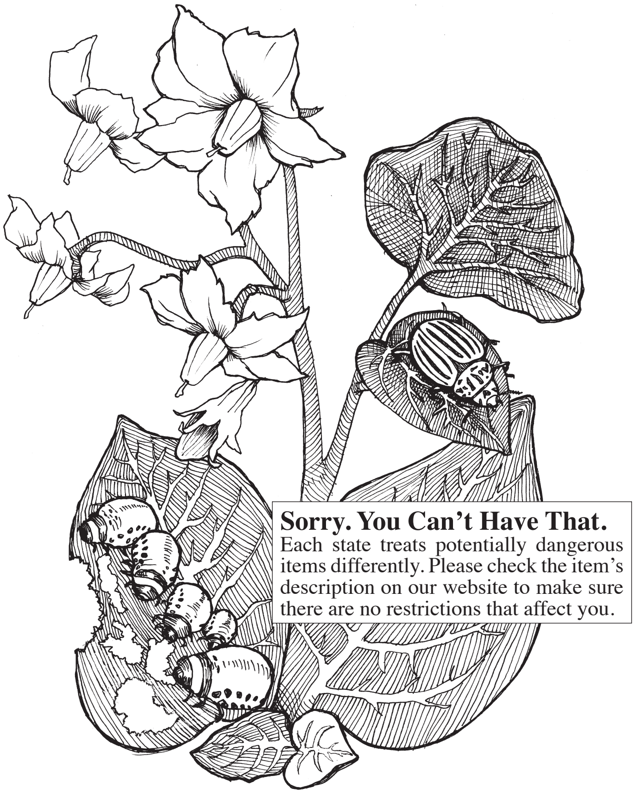
***8753 A**: 1# (0#) for $29.75*

Safer® Brand Caterpillar Killer for Trees, Shrubs & Vegetables Concentrate II. Liquid concentrate Bt (*Bacillus thuringiensis* subsp. *kurstaki*). Mix 1–4 tsp/gal of water depending on the intensity of the infestation. Labeled for a variety of caterpillar pests on most vegetables, ornamentals, and shade trees. Apply at the first sign of activity and repeat as needed up to harvest. Best applied in the afternoon as Bt breaks down in direct sunlight. EPA reg. 70051-106-42697. **OMRI**

***8756 A**: pint (3#) for $25.00*

Monterey Garden Insect Spray Spinosad is a mixture of spinosyn A and D metabolites produced during fermentation by *Saccharopolyspora spinosa*, an actinomycete (fungus-like) bacterium discovered in Caribbean soil. The spinosyns demonstrate excellent insect control with very low toxicity for other organisms. Spinosad is selectively active on insects of the orders Lepidoptera (caterpillar pests) and Diptera (flies) as well as some Coleoptera (beetles) and Hymenoptera (sawflies, wasps, ants, and alas bees). Targeted insects include leafminers, corn borers, leafrollers, cabbage loopers, armyworms, Colorado potato beetles, thrips, apple maggots, codling moths, lesser apple worms, and oriental fruit moths. Effective for a wide range of crops. Because it can be toxic to bees, avoid spraying during flowering and pollination. Apply this 0.5% solution of spinosads at 1–2 oz/gal for all crops. Registered for home garden use only; **if you need a commercial product, please visit our website for Entrust.** EPA reg. 62719-314-54705. **OMRI**

***8762 A**: pint (3#) for $32.50 **B**: gal (10#) for $118.00*



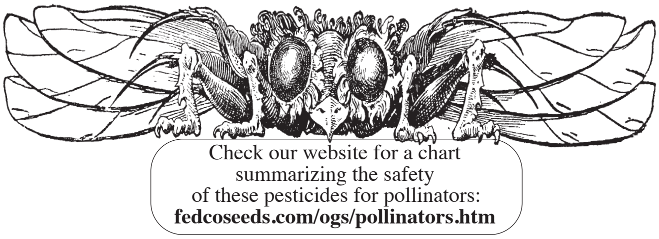
Sorry. You Can't Have That.
Each state treats potentially dangerous items differently. Please check the item's description on our website to make sure there are no restrictions that affect you.

PyGanic® Crop Protection EC 5.0 II Pyrethrin is a botanical insecticide derived from a chrysanthemum, *Tanacetum cinerariifolium*, grown in Kenya and Tasmania, with low toxicity for humans and other vertebrates. PyGanic is a 5% pyrethrin formulation with a rapid knockdown and high kill rate. Pyrethrins break down quickly so the toxic effects are short lived. May be used up to 12 hours before harvest. Effective for Colorado potato beetle, leafhopper, cucumber beetle, flea beetle, and others. This is a broad-spectrum insecticide; results are not limited to pests, so use this poison wisely. Application rate is 4½–18 oz/acre depending on pest and severity of infestation. EPA reg. 1021-1772. **OMRI**

***8765 A**: quart (3#) for $295.50*

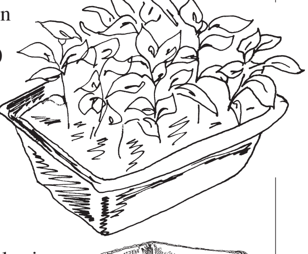
Monterey Bug Buster-O When the squash plants are eaten halfway to the ground or you can't see the rose bushes under the layer of Japanese beetles, it's time to reach for the heavy artillery. Effective and rapid knockdown of a broad array of insects both pestilential and beneficial, so exercise caution. We're not fans of the silly name, but we'll forgive Monterey for their ill-conceived branding because we needed a pyrethrin insecticide at a price that's affordable for the home gardener. Apply 1–1.4 oz/gal of water/1000 sq ft. Not labeled for commercial use; commercial growers should cough up for **8765** PyGanic, above. EPA Reg. No. 1021-1771-54705 **OMRI**

***8768 A**: 8 oz (0#) for $37.25*



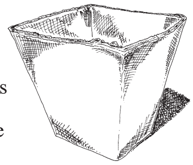
Check our website for a chart
summarizing the safety
of these pesticides for pollinators:
fedcoseeds.com/ogs/pollinators.htm

SEED STARTING SUPPLIES

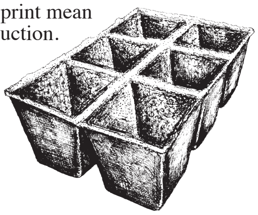


Kord® Fiber Grow Garden Paks Made of recycled cardboard fiber, these handy planters breathe much like clay pots. Reusable with care—one customer says he got ten years out of his before he had to order new ones. Interior dimensions 6x4 3/4x2 3/4"; 6 nest in a 1020 tray. Biodegradable, but not allowed by organic certifiers for planting pot-and-all because a synthetic binder is used. MOFGA says they are fine for organic seedlings if you remove the seedlings from the tray before planting; check with your certifier to see if they agree. **AYC**

***8781 A**: 6 (0#) for $4.25*
***B**: 100 (10#) for $47.50*



CowPots™ Tired of cleaning up all the brittle plastic after transplanting? Concerned about the effects of peat mining on the environment, and on the climate? Are your seedlings getting root-bound in their pots? CowPots present an innovative alternative for the eco-conscious farmer and gardener. Made in the U.S. from cow manure and a bit of recycled newsprint. Sadly, the presence of colored inks and traces of glossy paper in the newsprint mean these pots are **Not Allowed** for certified-organic production.

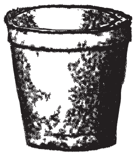


CowPots 4" Square 4 3/8" tall.

***8791 A**: 20 pots (2#) for $11.25*
***B**: case of 330 (60#) for $150.00*

CowPots Six-Pack Approx. 9x6" and 3" tall.

***8792 A**: six 6-packs (2#) for $9.25*
***B**: case of 120 (60#) for $152.50*

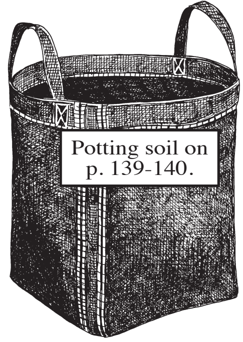


CowPots 3" Square 3" tall.

***8800 A**: 20 pots (2#) for $7.00*
***B**: case of 1176 (60#) for $250.00*

CowPots 3" Round 3 1/4" tall.

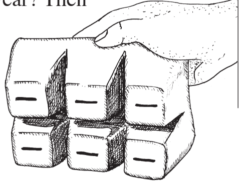
***8801 A**: 20 pots (2#) for $8.00*
***B**: case of 840 (60#) for $215.00*



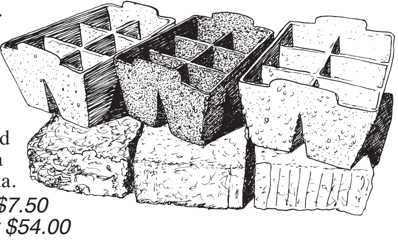
Potting soil on p. 139-140.

Fabric Pots Non-woven fabric pots provide excellent support to growing plants while allowing air to flow through the pot walls, preventing root circling and helping to aerate the growing medium. Lets water drain thoroughly. Fantastic for indoor growing, or for outdoor growing if you don't want to deal with weeds, compaction, or poor drainage. Choose from 1-gal plain round pots for young plants; 3-gal, 5-gal, 20-gal and 45-gal round pots with built-in handles for easier maneuvering; and 100-gal plain round pots for those monster plants. Other sizes (up to 1000 gal!) available by the case by special order.

***8804 A**: 1 gal (0#) for $3.75*
***8805 A**: 3 gal (0#) for $5.25*
***8806 A**: 5 gal (0#) for $6.50*
***8807 A**: 20 gal (0#) for $16.50*
***8808 A**: 45 gal (2#) for $18.50*
***8809 A**: 100 gal (2#) for $25.00*



Silicone Six-Pack Trays Tired of cheap plastic six-packs that fade and crack? Concerned about harmful chemicals leaching from poly containers into the root zone of your food crops? Don't want to fix these problems by spending money on biodegradable pots every single year? Then invest in these crush-proof break-proof melt-proof freeze-proof seedling containers made of rugged BPA-free FDA-approved silicone. It's easy to keep track of what you're growing: write on the sides with a permanent marker, and remove with rubbing alcohol at the end of the season. Sterilize with steam or hot water for endless reuse. Each cell has a drainage slit on the bottom. Soil releases easily from the sides at planting time. Approx. 4x6 1/4x2 3/4", plus a 3/8" tab on either end for easy handling. Our sturdier trays (**8831-8832**) will fit one set of eight six-packs. Only seven six-packs will fit into a standard 1020 tray. We buy these from a small family business in Florida.

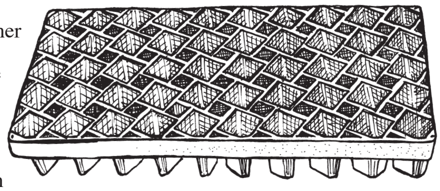


***8810 A**: 1 tray (0#) for $7.50*
***B**: 8 trays (1#) for $54.00*

Neversink Farm Tools

Situated in the Catskill Mountains, Neversink Farm has developed systems and tools that have helped them become a model for profitable small-scale farming, and they now teach acclaimed courses to other market gardeners. Neversink's own tool line brings together a select group of implements and supplies that have become mainstays for many a successful veggie farm. Fedco is proud to partner with Neversink in their mission to offer "the best tools for an affordable price for the farming community."

More tools by Neversink on page 150.



Winstrip Air Pruning Trays Have you longed to jettison those flimsy plastic plug flats but hesitated to invest all the extra soil, time and energy into soil blocks? Game-changing injection-molded Winstrip Air Pruning Trays to the rescue from Neversink Farm Tools! These trays offer the best of both worlds, and then some! When Beth Haines of Fisher Farm in Winterport, ME, astutely recommended we carry these, we dawdled on pursuing what we assumed was just another plastic tray. See sidebar below to learn how we became converts. Choose from standard 10x20" trays and **NEW!** Mini Wini trays for smaller plantings. Extremely durable recycled plastic is food grade, BPA-free and UV-resistant. Made in the USA.

Winstrip 128-cell Tray Standard 10x20" tray with 128 cells. Cell size 1" wide x 1.9" deep. **NEW!**

***8815 A**: 1 tray 128-cell (2#) for $16.00*
***B**: 10 trays 128-cell (20#) for $115.50*

Winstrip 72-cell Tray Standard 10x20" tray with 72 cells. Cell size 1.3" wide x 2.3" deep.

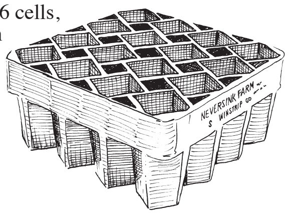
***8816 A**: 1 tray 72-cell (2#) for $16.00*
***B**: 10 trays 72-cell (20#) for $115.50*

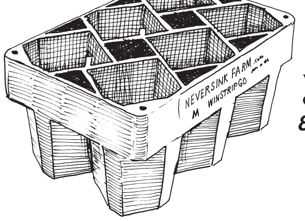
Winstrip 50-cell Tray Standard 10x20" tray with 50 cells. Cell size 1.6" wide x 2.72" deep.

***8817 A**: 1 tray 50-cell (2#) for $16.00*
***B**: 10 trays 50-cell (20#) for $115.50*

Mini Wini Small-cell Tray Each tray has 16 cells, with cell size of 1" wide x 1.9" deep. You can fit 8 of these into one 1020 tray. **NEW!**

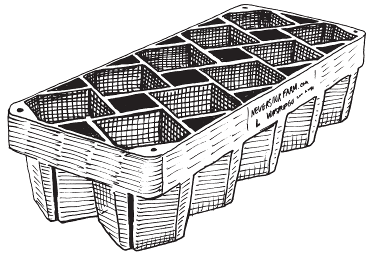
***8812 A**: 1 tray small cell (0#) $5.00*
***B**: 10 trays small cell (2#) $39.75*





Mini Wini Medium-cell Tray Each tray has 6 cells, with cell size of 1.3" wide x 2.3" deep. You can fit 12 of these into one 1020 tray. **NEW!**

***8813 A**: 1 tray medium cell (0#) $4.00*
***B**: 10 trays medium cell (2#) $29.25*



Mini Wini Large-cell Tray Each tray has 10 cells, with cell size of 1.6" wide x 2.72" deep. You can fit 5 of these into one 1020 tray. **NEW!**

***8814 A**: 1 tray large cell (0#) $5.50*
***B**: 10 trays large cell (2#) $44.25*

How do we love Winstrip Trays? Let us count the ways:

Extremely durable! One grower reported using the same Winstrip trays for multiple times a season for more than 20 years. Sturdy trays don't require bottom trays for support.

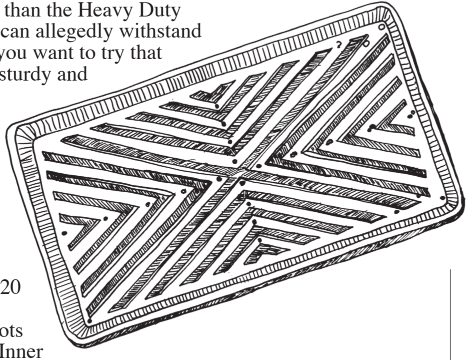
Air pruning that rivals soil blocks! Generous airflow slots on the sides and bottom of each cell prevent root spiraling and reduce incidence of seedling disease and transplant shock.

Quick and easy to fill! Simply pour dry potting mix into the tray, scrape off excess, and tap the bottom on the workbench to eliminate air pockets. So much simpler than soil-blocking! No need to push soil down with your fingers, as with plug flats.

Saves potting soil and water! Winstrip trays use far less soil than soil blocks. Less soil means less watering; they absorb water efficiently to begin with, and stay moist longer.

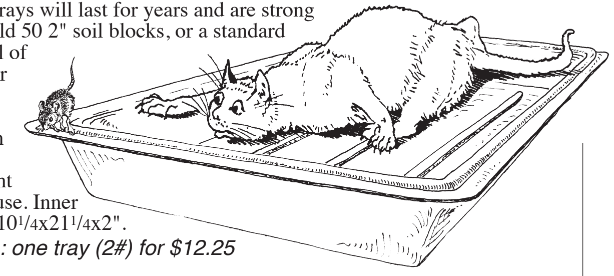
Improves transplanting! You can carry each trayful of seedlings one-handed out to the field. Faster to pop out seedlings than with plug flats, and no need to tease apart roots like with soil blocks.

Indestructible Bottom Trays We've never seen a sturdier tray! Thicker plastic than the Heavy Duty Trays, yet more flexible and can allegedly withstand being run over by a tractor (you want to try that now, don't you?) The rim is sturdy and easy to handle, and trays are shallower than the heavy duties. No drain holes, so they're great for starting seeds in your house and for bottom watering. Even with the densest, wettest soil imaginable, the tray won't come close to caving. They support all standard 1020 trays—including **8812-8817** Winstrips, **8791-8801** CowPots or **8810** Silicone Six-Packs. Inner dimensions: 11x21x1½". Made in the USA; another bulletproof intro from Neversink Farm! **NEW!**



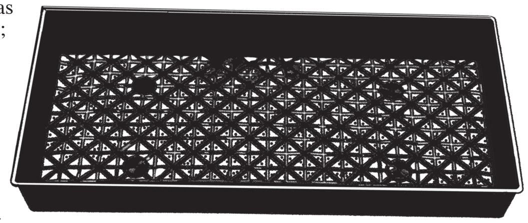
8831 ***A****: 1 tray (1#) for $8.50*
B*: 10 trays (10#) for $83.75*

Heavy Duty Plant Tray These sturdy khaki polystyrene trays will last for years and are strong enough to hold 50 2" soil blocks, or a standard 1020 tray full of soil. Good for windowsills because they have no drain holes. Store out of sunlight when not in use. Inner dimensions: 10¼x21¼x2".



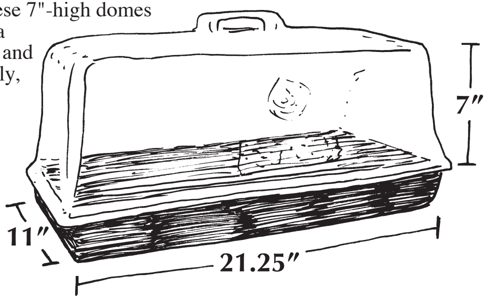
8832 ***A****: one tray (2#) for $12.25*

Mesh Bottom Trays Like our standard 1020 trays (available on our website), but with open mesh bottoms. Favored by many growers for soil-block propagation as roots will air-prune; line tray with damp newspaper before pressing out blocks. Great for supporting plug flats. Used in hydroponic production to suspend cuttings or young plants in nutrient solution. 2⅜" deep.



8836 ***A****: 5 trays (2#) for $13.75*
B*: 50 trays (30#) for $109.00*

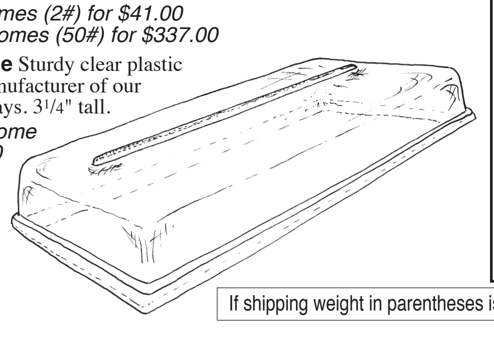
High Domes Regular domes are not tall enough for vigorous seedlings like cucurbits and tomatoes: these larger plants will be pushing against the underside of regular domes almost as soon as they sprout! To continue to offer extra warmth and protection to these crops after germination, try these 7"-high domes that fit neatly over a standard 1020 tray, and somewhat less neatly, but still effectively, over either of our sturdy bottom trays (**8831-8832**). If you're grafting nightshades or cucurbits, you can use these high domes as the "healing chamber." Two dial-type vents on the top of the dome allow you to manage the humidity. If you live in a cold drafty farmhouse, your young plants will appreciate the extra dome time. 11x21¼x7".



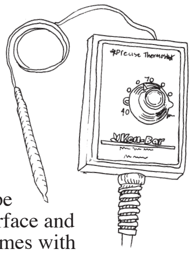
8830 ***A****: 5 domes (2#) for $41.00*
B*: 50 domes (50#) for $337.00*

Heavy Duty Dome Sturdy clear plastic domes from the manufacturer of our heavy-duty plant trays. 3¼" tall.

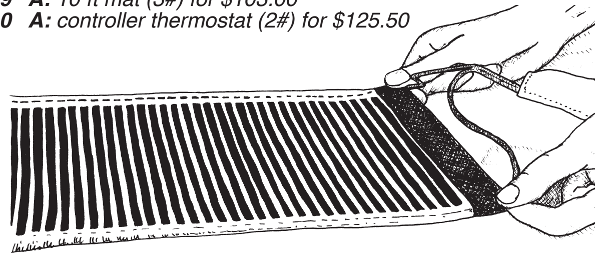
8835 ***A****: one dome (2#) for $8.00*



Agritape Heat Mats and Precise Controller A good heat mat makes the difference between success and complete failure when starting crops of tropical ancestry, including most Solanums (tomatoes, peppers, eggplants, husk cherries) and Cucurbits (squash, melons, cucumbers). The Agritape heating element is controlled by a precise controller thermostat (*mat and controller sold separately*). We've found that separate mats and controllers offer more flexibility and longevity than mats with built-in controllers. The controller can run multiple mats (up to 90 sq ft of mat area) by plugging a common power strip into the controller—mats can be replaced when needed. Agritape provides uniform precise temperature over its entire surface and uses 20 watts of electricity per linear foot. Each mat comes with an aluminum grounding screen that lays down over the Agritape. Each controller has one flexible 3' tube with a temperature-sensor bulb to insert into the potting soil; set the dial to desired soil temperature. Foam insulation board may be installed under the Agritape to improve thermal efficiency, but this is not a must. Mats roll up easily for storage. Mats come in two sizes: 4' or 10' long, both 11" wide.

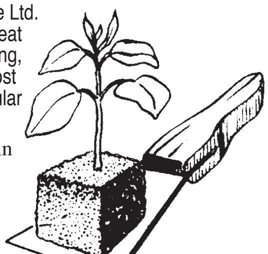


8838 ***A:*** *4 ft mat (2#) for $65.00*
8839 ***A:*** *10 ft mat (3#) for $103.00*
8840 ***A:*** *controller thermostat (2#) for $125.50*



LADBROOKE SOIL BLOCKERS

The genuine article, made in England by Ladbrooke Ltd. The soil block system eliminates annual costs for peat pots or plastic plug flats, allows for easy transplanting, and eliminates root spiraling. **8371** Vermont Compost Fort Vee and **8366** bio365 BIOALL™ are both popular soils to use with soil blockers.



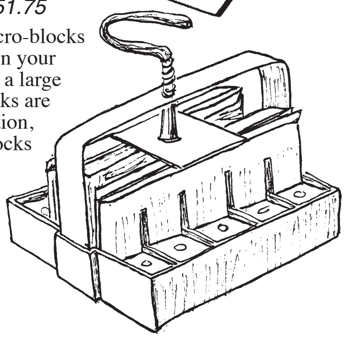
Mini 5 Blocker Makes five 1½" soil blocks in one stroke.

8841 ***A****: blocker (2#) for $50.25*

Mini 4 Blocker Makes four 2" soil blocks in one stroke.

8844 ***A****: blocker (2#) for $51.75*

Micro 20 Blocker Makes 20 micro-blocks per stroke in a 3x4" area. Use when your space is limited or when you want a large number of transplants. Micro-blocks are easier to warm, speeding germination, and can be inserted into 2" soil blocks to continue seedling growth. For micro-blocks, we recommend using **8366** bio365 BIOALL or *sifted* **8371** Fort Vee.



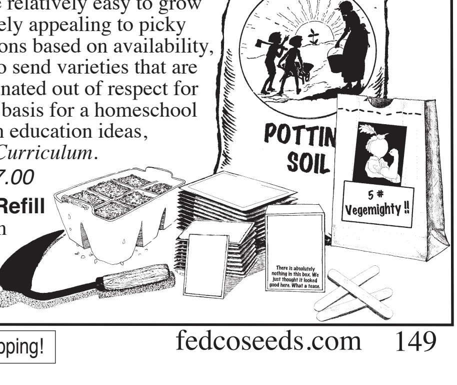
8847 ***A****: blocker (0#) for $47.50*

Children's Grow Kit An approachable starter kit for young or novice growers. Includes a packet of seed for each of a dozen crops (beans, carrots, popcorn, cucumbers, sunflowers, lettuce, muskmelons, snap peas, sweet peppers, pumpkins, radishes and cherry tomatoes); ⅓ cu ft of potting soil and seedling containers for the varieties that should be started indoors; a bundle of plant labels; a 5-lb bag of our Vegemighty mix; an EZ-Digger for transplanting, row marking, and weeding; and a chronological set of growing instructions.

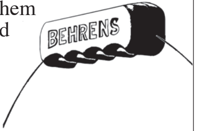
All the selected varieties are relatively easy to grow and to save seed from, and widely appealing to picky eaters. We may make substitutions based on availability, but we will make every effort to send varieties that are certified organic and open-pollinated out of respect for our shared future. An excellent basis for a homeschool garden course. For more garden education ideas, read **9746** *The School Garden Curriculum*.

8785 ***A****: kit (10#) for $97.00*

Children's Grow Kit Seed Refill Want just the seeds that come in this kit? You'll find a refill pack in our Seeds section (page 7).

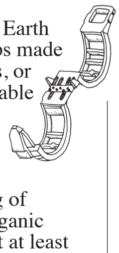


GARDEN TOOLS



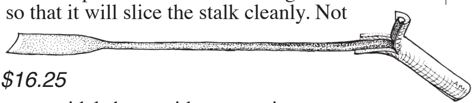
Silicone Bucket Comfort Grip When the hard plastic handles crack or fall off your favorite 5-gallon buckets, you can replace them with these 100% silicone grips! Features finger grooves and a large grip circumference, so the weight is evenly distributed on your hand, allowing you to comfortably carry heavier buckets for longer durations. Easy to put on and take off but doesn't come loose during use. Silicone is more durable and ocean-friendly than plastic knockoffs. Withstands extreme heat and cold. Intact plastic handles must be removed to use these grips; we recommend cutting the plastic lengthwise with a sharp utility knife or using vise grips to break it away. 4x1x1$^1/_4$". Orange.

***8885 A**: one grip (0#) for $10.50*



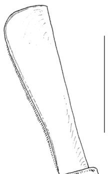
Biodegradable Tomato Clips Easy to use and even easier on the Earth than conventional plastic clips! Use these $^7/_8$" (internal diameter) clips made of non-GMO cornstarch to attach tomatoes (or cucumbers, or melons, or other thin-vined plants) to your trellis system. If you use a biodegradable material (like **8866** Sisal Twine) for your trellises, you can just cut the whole thing down at the end of the season and let it degrade in place, saving the labor of picking through the vines and strings for bits of plastic. The clips will fully compost in 13 weeks in suitable conditions. This lack of stability demands caution: do not leave a bag of these clips sitting in the sun or they might melt together! Certified organic operations must dispose of these clips as they would plastic clips, but at least they're made of renewable materials and won't pile up in the landfill.

***8886 A**: 100 count (0#) for $12.75*



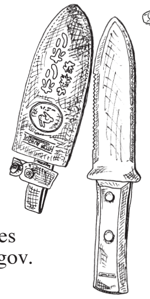
Asparagus Knife 1$^1/_2$x7" blade, 15" handle with a pistol grip. A wicked-looking tool, but perfect for harvesting asparagus. Stick the knife into the soil against the stalk to harvest it a couple of inches below the ground. The blade is slightly concave so that it will slice the stalk cleanly. Not designed as a weeding tool. Manufactured in the USA.

***8896 A**: knife (2#) for $16.25*



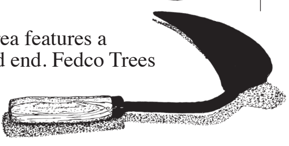
Broccoli Knife Specialized trapezoidal shape with two cutting edges slices plants off at ground level for clean quick harvesting or nips sideshoots for continued growth. Stainless steel blade has high carbon content for easy sharpening. Blade 7" long, 2" wide at widest point; handle 4$^3/_4$" long in bright yellow plastic for good visibility in the weeds. Made in Taiwan.

***8899 A**: knife (0#) for $8.50*



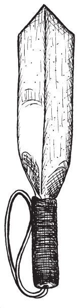
Weeding Knife or ***Hori-Hori*** Originally designed to extricate plants for bonsai from Japan's mountains. Good tool for planting bulbs and strawberry crowns, for general cultivating, and for sawing small roots or heavy stems, though not as sharp as a knife or a saw. Thick concave steel blade with beveled edges tapering to a point, one semi-sharp smooth edge and one serrated edge. The 6$^1/_2$" blade extends 2$^1/_2$" into the wooden handle to which it is securely riveted. Susan and David's favorite hand tool, still in good condition after decades of hard use and benign neglect. 11$^1/_4$" long overall. Comes with a black vinyl sheath with a belt loop. *Note:* sheath material requires a Proposition 65 warning; for details see p65warnings.ca.gov. Manufactured in Japan.

***8908 A**: knife (0#) for $41.50*



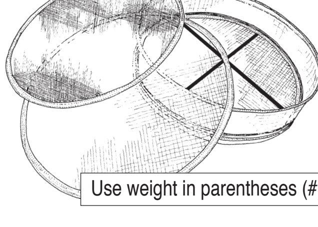
EZ-Digger™ Unique hand-plow design from Korea features a 7" long, 3" wide convex blade tapering to a pointed end. Fedco Trees founder John Bunker keeps one in his back pocket whenever he's in the orchard or garden. If the handle comes loose, reinsert blade tang and rap handle forcibly on a hard surface to reset it. See also **8910** Homi Digger. Handle length 4$^7/_8$". Manufactured in Korea.

***8911 A**: digger (0#) for $20.25*



Wilcox All-Pro Heavy-Duty Digging Trowel These strong one-piece tools are nearly indestructible and will not bend, even when digging in hard soil. Forged stainless-steel V-shaped blade is 9" long by 3" wide with a sharp point for piercing sod or soil and an etched depth guide. Comfortable non-slip easy-grip handle with a handy leather thong to loop around your wrist or hang in the shed. 14" overall length. Actual weight is 12.3 oz. Comes with a lifetime replacement guarantee from Wilcox. This is the same trowel we've carried for years in our Bulbs catalog. The Fedco Seeds logo is etched into the blade. Classy! Made in Iowa.

***8912 A**: trowel (0#) for $29.00*

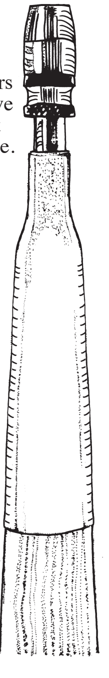


Soil and Seed Sieve Set A 12" diameter stainless steel frame with 3 interchangeable screens of 4, 5 and 10 mesh/inch. Use to prepare potting mix or for seed cleaning: the screens singly or together can hold up seed while the chaff drops out or vice versa. Manufactured in Japan.

***8914 A**: set (5#) for $30.00*

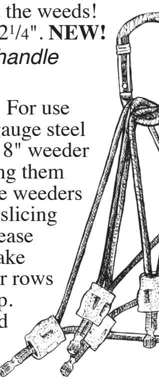
NEVERSINK FARM TOOLS

Read about Neversink Farm on page 148.



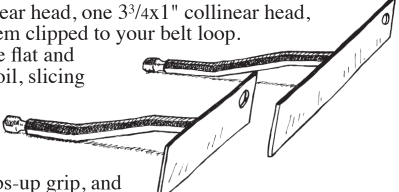
Mutineer Adapter Head With Handle Join the hoe rebellion with this interchangeable hoe-head system from the tool developers at Neversink. The Mutineer system grants you the freedom to move easily from bed to bed, employing your choice of hoe head to best suit the crop at hand, all from this single convenient adapter handle. The adapter/receiver socket works just like a quick-change chuck/sleeve on an impact driver. For best performance and longevity, clean and oil the socket seasonally to prevent gunk buildup and rust. If soil gets jammed in the socket, spray a jet of water in there, and use a stiff wire to free up the dirt. The Maine hardwood handle is embossed with the Fedco logo so you can display your co-op loyalty. We recommend treating the handle with linseed oil every year, for the life of the tool. This is the adapter and handle only; see head options below (**8888-8890**) to build out your hoe arsenal and stage a revolt against the weeds! Length of handle with adapter: 62$^1/_4$". **NEW!**

***8887 A**: adapter head & handle (17#) for $64.50*



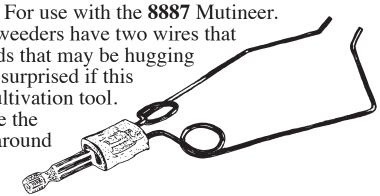
Set of 4 Wire Weeder Heads For use with the **8887** Mutineer. Heavy gauge steel wire. Set includes 2", 4", 6", and 8" weeder heads, plus a carabiner for keeping them all clipped to your belt loop. Wire weeders glide just below the soil surface, slicing and uprooting small weeds with ease and minimal soil disturbance. Make swift nimble passes between your rows without risk of uprooting the crop. Note: to maximize tool life, avoid bending the steel wire. **NEW!**

***8888 A**: set of 4 weeder heads (0#) for $58.00*



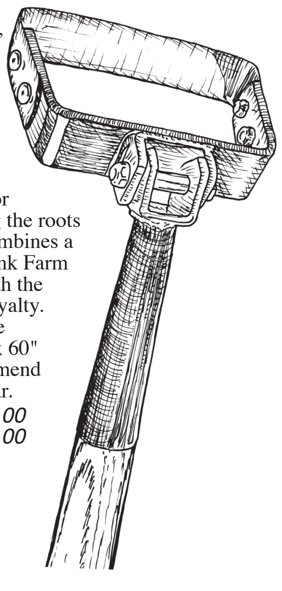
Set of 2 Collinear Hoe Heads For use with the **8887** Mutineer. Set includes one 6$^3/_4$x1" collinear head, one 3$^3/_4$x1" collinear head, and a carabiner for keeping them clipped to your belt loop. Sharp thin collinear blades ride flat and parallel with the top layer of soil, slicing through weeds without tossing soil onto the crop. Especially useful around low-lying leafy crops like head lettuce. Stand upright, employ a thumbs-up grip, and enjoy efficient ergonomic weeding! **NEW!**

***8889 A**: set of 2 hoe heads (0#) for $44.00*



Large Torsion Weeder Head For use with the **8887** Mutineer. Widely used on tractors, torsion weeders have two wires that straddle the crop, taking out weeds that may be hugging the base of your plants. Don't be surprised if this quickly becomes your favorite cultivation tool. Maximum height clearance above the plant is 6"; maximum clearance around base of plant is 2". The intended orientation is to lay the flat edges of the tips parallel with the soil, but you can experiment and see what works; some like the opposite orientation for raking up lettuce-leaf waste. You can even hook the two tips together to form a contiguous wire weeder that has a pointy center for use between rows. **NEW!**

***8890 A**: torsion head (0#) for $33.50*



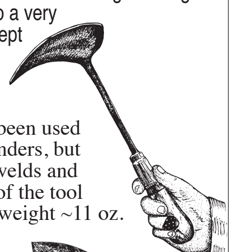
Stirrup Hoe Also known as the **scuffle hoe**, this is an essential tool for dealing with weeds small and large. The oscillating head works its way under the soil surface, where it slices through the weeds' roots while you stay comfortably upright, without needing to exert much downward pressure. Excellent for footpaths and in beds where rows are widely spaced. Start on one end of the path or row and scuffle your way backwards, cutting the roots with each pull stroke. This sturdy version combines a head designed and manufactured by Neversink Farm with an ergonomic ash handle, embossed with the Fedco logo so you can display your co-op loyalty. Choose either 7" or 5" head width; blades are sharpenable and replaceable. Handle is 1$^1/_4$ x 60" and the overall tool length is 66". We recommend treating the handle with linseed oil every year.

***8891 A**: 7" stirrup hoe (20#) for $79.00*
***8892 A**: 5" stirrup hoe (20#) for $77.00*

Use weight in parentheses (#) to calculate shipping charge.

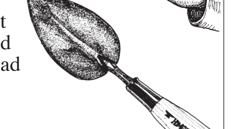
HOMESTEAD IRON TOOLS

Homestead Iron is a small company founded by blacksmith Will Dobkins in Squires, MO, that crafts high-quality garden tools with skill and care. Each blade is hand-forged with C1075 high-carbon steel, welded to a hand-forged shank and securely fixed for life to an ergonomic American hardwood handle to enhance the gardening experience. Note: the blades are carefully ground by hand to a very sharp cutting edge; please keep away from children (except your grandchildren when they're old enough to inherit them).



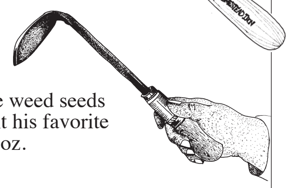
Homi Digger With its nice sharp edge, this versatile tool cuts through soil and weeds with ease. Makes cultivating a joy—it's no wonder the *homi* design has been used for at least 1000 years in Korea. Designed for right-handers, but many lefties like it, too. Single-piece forging with no welds and a handle that's guaranteed to stay attached for the life of the tool (which could outlive you)! Overall length 13". Actual weight ~11 oz.

8910 A: homi digger (0#) for $49.50



Trowel The 5$\frac{3}{4}$ x 3" blade is tapered to a point, perfect for planting bulbs and transplants or removing taprooted weeds. Another great rendition of a classic by Homestead Tools. Overall length 12$\frac{1}{4}$". Actual weight ~9.5 oz.

8913 A: trowel (2#) for $55.00

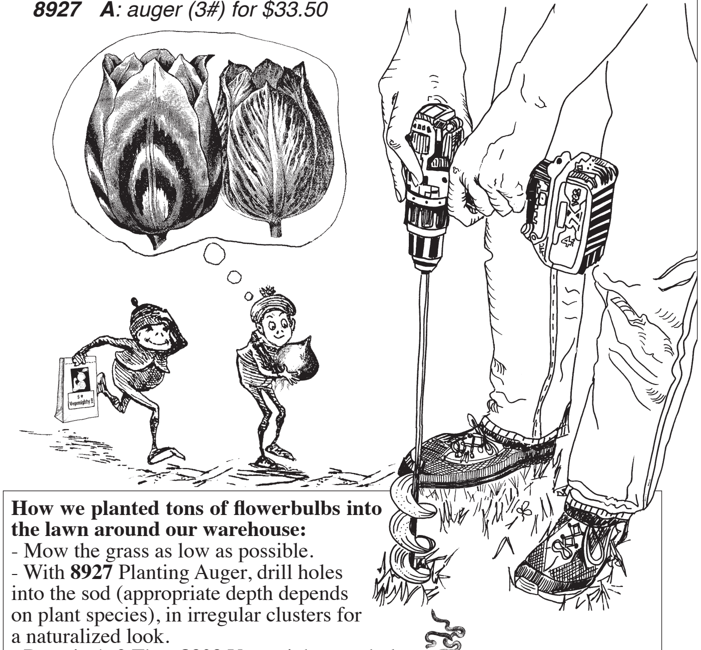


Cape Cod Weeder The 3$\frac{1}{4}$x$\frac{7}{8}$" blade is set at right angles to the shaft with beveled sharpened edges to separate weeds from their roots just below the soil surface. Minimizes soil disturbance to reduce likelihood of allowing more weed seeds to germinate. Fedco's legendary Gene Frey calls it his favorite hand tool! Overall length 12". Actual weight ~10 oz.

8917 A: weeder (0#) for $45.00

Planting Auger Tired of being hunched over with a trowel? Quickly plug in hundreds of flowerbulbs and plants for a naturalized look in your landscape! Also handy in established garden beds. Works with most corded and modern cordless drills. (Manufacturer recommends any corded drill, $\frac{3}{8}$" or larger. For cordless, use a $\frac{1}{2}$" drill with at least 18 volts of power.) There are lots of garden augers on the market, but we chose this one because it's sturdy, made in the USA, and the end that you insert in the drill chuck is a continuation of the shaft (rather than a separate piece welded on, which tends to break off). Auger diameter 2$\frac{3}{4}$"; overall length 24". **NEW!**

8927 A: auger (3#) for $33.50

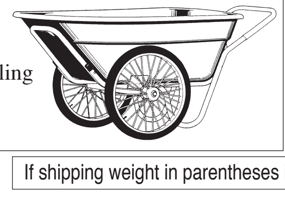


How we planted tons of flowerbulbs into the lawn around our warehouse:
- Mow the grass as low as possible.
- With **8927** Planting Auger, drill holes into the sod (appropriate depth depends on plant species), in irregular clusters for a naturalized look.
- Drop in 1–2 Tbsp **8309** Vegemighty per hole.
- Set the bulbs in the holes, upright!
- Backfill holes with **8377** VT Compost Perennial Blend or aged compost.
- Spread a bit more Perennial Blend or compost (up to 1" thick) to cover the remaining grass in the cluster area.
- Cover the area with your preferred mulch (**8397** Buckwheat Hulls or organic straw) and then wait patiently for spring!

Where are the Smart Carts?

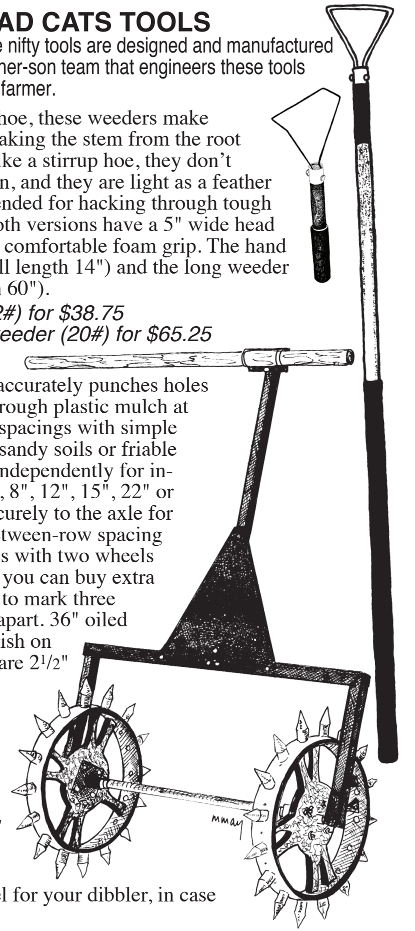
To order Smart Carts, check our website:
fedcoseeds.com/ogs/list-smart-cart
You will also find our Smart Water Carts for moving water in the summer and hauling firewood in the winter.

Carts will be shipped directly to you.



TWO BAD CATS TOOLS

Yankee ingenuity at its best. These nifty tools are designed and manufactured in Vermont by Two Bad Cats, a father-son team that engineers these tools for the serious gardener and small farmer.



Wire Weeders Like a stirrup hoe, these weeders make quick work of small weeds, breaking the stem from the root just below the soil surface. Unlike a stirrup hoe, they don't have moving parts to wear down, and they are light as a feather (though plenty strong). Not intended for hacking through tough roots or into compacted soil. Both versions have a 5" wide head and an aluminum handle with a comfortable foam grip. The hand weeder has a 10" handle (overall length 14") and the long weeder has a 56" handle (overall length 60").

8893 A: hand weeder (2#) for $38.75
8894 A: long-handled weeder (20#) for $65.25

Infinite Dibbler Quickly and accurately punches holes for transplants in bare soil or through plastic mulch at many in-row and between-row spacings with simple adjustments. Most effective on sandy soils or friable loams. Each wheel may be set independently for in-row plant spacings of 3", 4", 6", 8", 12", 15", 22" or 41", while the wheels clamp securely to the axle for almost infinite adjustment of between-row spacing up to a maximum of 24". Comes with two wheels to mark two rows at a time, but you can buy extra wheels (see below) if you want to mark three rows 12" apart or four rows 8" apart. 36" oiled ash handles, red powdercoat finish on frame. Hard aluminum dibbles are 2$\frac{1}{2}$" long and 1" in diameter.

We can also special order dibblers with wider axles—please email ogspurchasing@fedcoseeds.com for more information.

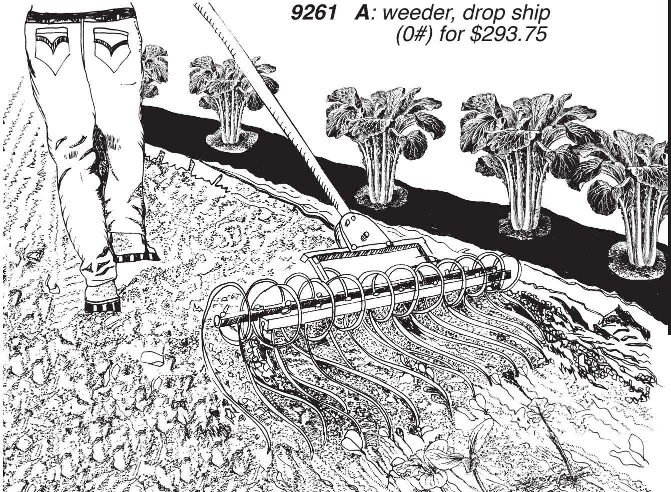
9258 A: 2-wheel dibbler, drop ship (0#) for $676.25

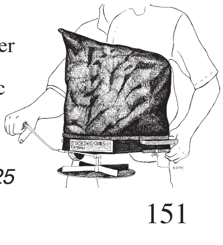
Dibbler Wheel An extra wheel for your dibbler, in case infinity isn't enough for you.

9259 A: dibbler wheel, drop ship (0#) for $197.00

Tine Weeder Tine weeding, also called blind harrowing, is a favorite technique among organic grain farmers—45' wide tine weeders are not an uncommon sight on organic fields in the Midwest and Canada. Now, thanks to Two Bad Cats, this technology is available for those operating on a smaller scale. Two offset rows of flexible tines, spaced 1$\frac{1}{2}$" apart, span 18" across and will go around your established plants (and your drip tape!) without disturbing them, but will wreak havoc on barely germinated weeds. Like so many farm and garden activities, this tool requires well-timed use to be truly effective: it won't kill established weeds. Handle 56$\frac{1}{2}$" long with adjustable angle.

9261 A: weeder, drop ship (0#) for $293.75





EarthWay Broadcast Spreader Spread seed or granular fertilizer evenly and accurately. This spreader has a zippered nylon bag, a shoulder strap and an enclosed gear box to keep dirt out of the die-cast zinc gears. 25 lb capacity. *Note:* nickel and chromium in the steel require a Prop 65 warning for this product; see p65warnings.ca.gov. Manufactured in the USA.

9255 A: broadcast spreader (10#) for $91.25

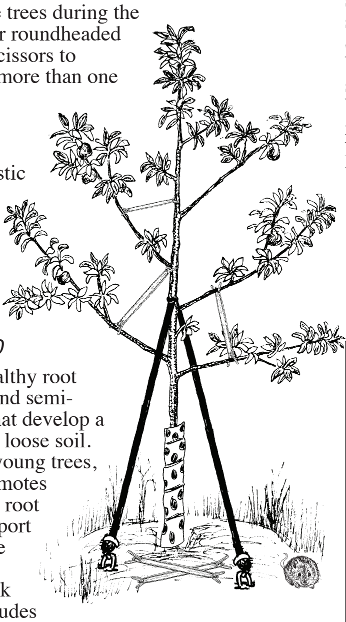
If shipping weight in parentheses is (0#), the item qualifies for free shipping!

ORCHARD TOOLS

Supplies for monitoring orchard pests are on p. 143.

Tree Guards Spiral plastic guards protect tree trunks from mice and voles in the winter. Remove them from apple trees during the growing season lest they provide a habitat for roundheaded appletree borers. 24" high. Can be cut with scissors to customize height on very small trees, or use more than one to wrap wider trees.

***8965 A**: bundle of 5 (2#) for $8.00*

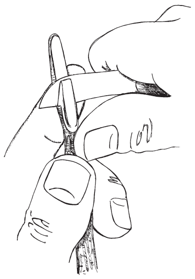


Limb Spreaders These galvanized metal limb spreaders are more durable than the plastic versions we used to carry. Use them to establish optimal crotch angles on young tree branches. The patented tip style has a sturdy point in the middle and gently curved corners to hold the branch and prevent slipping. Bundle of 12, in assorted sizes between 6" and 16".

***8968 A**: bundle of 12 (0#) for $17.00*

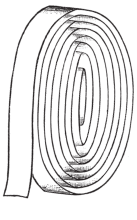
Tree Staking Kit Stake your claim on a healthy root system! Staking is recommended for dwarf and semi-dwarf fruit trees, trees in windy sites, trees that develop a leaning habit, and trees planted in shallow or loose soil. Too much sway can snap, deform or uproot young trees, but a limited amount of trunk movement promotes the growth of a strong and evenly distributed root system. The commercial-strength rubber support lines in this kit are calibrated to allow just the right amount of gesticulation for trees up to 2" in trunk diameter. Lines are easy to unhook for pruning, weeding, mulching, etc. Kit includes supplies for staking one tree: three 4½' rubber lines (¼" diameter), three metal hooks, three 11" metal stakes, and installation instructions.

***8970 A**: staking kit (2#) for $41.50*



Grafting Kits The basics you'll need to graft fruit trees (or any woody plants that can be propagated by grafting). Includes one right-handed grafting knife with single-bevel blade for smooth, flat cuts (plus it's micro-beveled so it will hold its edge through sustained use); one bottle of Treekote Grafting Sealer to prevent the wood from desiccating; and one roll of grafting tape to secure the graft union: ½" Parafilm for bench grafting (Kit **A**) or ½" PVC tape for topworking (Kit **B**). We include a sheet with instructions and illustrations for how to bench graft or how to topwork, based on whether you buy A or B. Check out our Trees catalog for scionwood and rootstock.

***8971 A**: bench-grafting kit (3#) for $39.00*
***8972 A**: topworking kit (3#) for $40.00*



Parafilm® Grafting & Budding Tape Very stretchy ½" or 1" wide tape holds graft union firmly together. If wrapped just one or two layers thick, it will degrade and fall off on its own with a couple months of outdoor exposure, saving labor; beefier wrapping will likely need to be manually removed to prevent girdling. Parafilm, a low-molecular-weight polyethylene product, is relatively benign in the environment, compared with PVC. 90' roll.

***8974 A**: ½" tape, one roll (0#) for $5.50*
***B**: ½" tape, case of 12 rolls (2#) for $29.50*
***8975 A**: 1" tape, one roll (0#) for $6.50*
***B**: 1" tape, case of 6 rolls (2#) for $29.50*

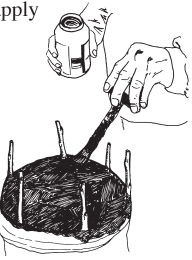
PVC Grafting Tape Some grafters report that Parafilm tape is not strong enough for larger grafts. PVC tape is much stronger than Parafilm and will not break down. This makes it suitable for topworking. Leave it on the tree until the graft is well established, then remove. ½"x300'.

***8977 A**: one roll (0#) for $6.00*

GRAFTING WAX
NET WT 8oz.

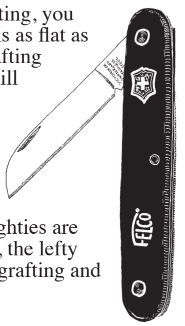
Grafting Wax Primarily beeswax, with a few proprietary stabilizers added. Use to seal and protect new grafts from the elements. Needs to be warmed to become spreadable: work it in your hands until pliable, or warm to a liquid in a pot you love to scrub, then pour the liquid wax into a dedicated wide-top thermos that you can take around the orchard with you and apply with a brush.

***8983 A**: 8 oz (0#) for $12.00*



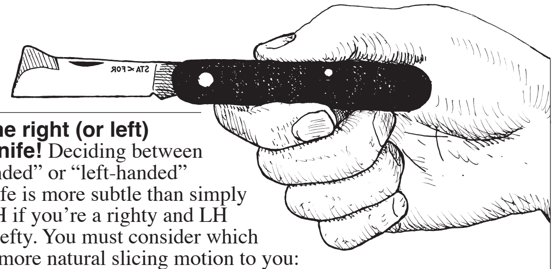
Treekote™ Grafting Sealer Water-soluble black asphalt emulsion for graft dressing. Dries quickly. Used extensively and successfully with any kind of grafting. (We do not recommend painting any compounds on pruning cuts or tree wounds.) Screw-on lid and attached brush applicator. Store above freezing temperatures to avoid troublesome changes in consistency.

***8986 A**: pint (3#) for $12.50*



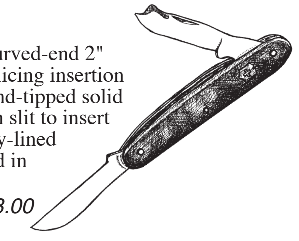
Grafting Knife To shape a stick of scionwood for grafting, you need a knife that is beveled on only one face so the cut is as flat as possible. We offer "right-handed" and "left-handed" grafting knives—see explanation below to decide which knife will suit your style of grafting. **8989** (right-handed): 2¼" stainless steel blade; 3½" alloy-lined nylon handle with satin finish; overall length: 6½"; manufactured in Switzerland. **8990** (left-handed): 2¼" carbon steel blade; 4⅛" fiberglass-reinforced nylon handle with satin finish; overall length: 6.7"; manufactured in Italy. Why is the lefty more expensive than the righty? The righties are manufactured on a much greater scale than lefties. Also, the lefty knife features a precision bark-lifter tab, useful for bud grafting and topworking.

***8989 A**: right-handed knife (0#) for $26.50*
***8990 A**: left-handed knife (0#) for $35.00*



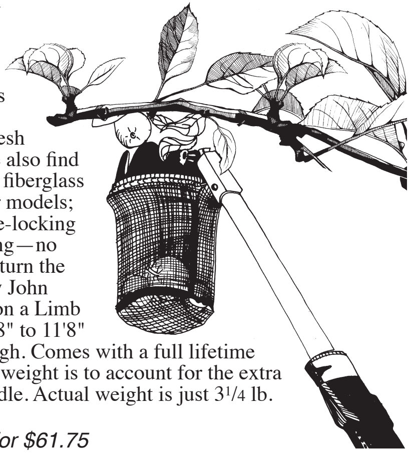
Choose the right (or left) grafting knife! Deciding between a "right-handed" or "left-handed" grafting knife is more subtle than simply ordering RH if you're a righty and LH if you're a lefty. You must consider which feels like a more natural slicing motion to you: pulling toward yourself, or pushing away from yourself. If you're not sure, try practicing with a utility knife. Fedco's resident grafting instructor notes that in most cases, pulling toward gives the grafter more knife control than pushing away. On the other hand, your mother said you should never cut toward yourself. Whether slicing toward or away from yourself, the beveled side should face up and the flat side should face down.

Here's a simple key to help you decide which knife to get:
Prefer to hold knife in RH and cut toward yourself: Style A (RH)
Prefer to hold knife in RH and cut away from yourself: Style B (LH)
Prefer to hold knife in LH and cut toward yourself: Style B (LH)
Prefer to hold knife in LH and cut away from yourself: Style A (RH)



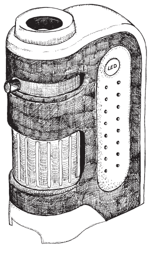
All-purpose Budding Knife Pointed curved-end 2" stainless steel blade for cutting buds and slicing insertion slits in the bark of the host rootstock. Round-tipped solid brass 1" bark-opener blade for prying open slit to insert the bud without slicing the bark. 3½" alloy-lined nylon handle. Right-handed. Manufactured in Switzerland.

***8992 A**: budding knife (0#) for $48.00*



Fiskars® Pole Fruit Picker Finally, a high-quality pole picker that doesn't puncture or damage fruit! We're thrilled to offer this sturdy yet lightweight tool with its well-designed head with patented tabs that gently procure fruit and catch it into a mesh bag. Suitable for practically all shapes and sizes of fruit, from crabapples to papayas. The angle of the head is adjustable, and the mesh bag is machine washable. We also find the telescoping design on the fiberglass handle to be superior to other models; it employs an intuitive double-locking mechanism for a secure setting—no more guessing which way to turn the tightening knob. Endorsed by John Bunker and the crew of Out on a Limb Apple CSA. Extends from 6'8" to 11'8" to pick those pears way up high. Comes with a full lifetime warranty. The 40 lb shipping weight is to account for the extra cost of shipping the long handle. Actual weight is just 3¼ lb. Made in China.

***8997 A**: picker (40#) for $61.75*

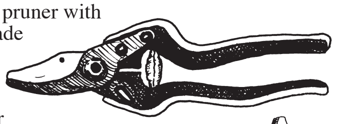


Microbrite Plus Pocket Microscope This ultra-portable user-friendly pocket scope magnifies 60–120x, with a powerful LED light to deliver a bright clear image. Many loupes and pocket scopes require expensive specialty batteries: this one runs on a single AA battery (not included). Essential tool for observing trichome color to determine harvest timing; also useful for identifying miniature pests, detecting the early stages of fungal or bacterial infections, reading the tiny print of this catalog, or admiring slime mold. 59mm x 30mm x 92mm. Made in China.

***9002 A**: microscope (0#) for $16.00*

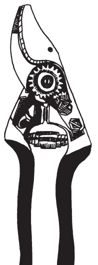
FELCO® CUTTING TOOLS

Imported from Jura, Switzerland, Felco tools set the standard for professional quality, precision and durability. Made with high-quality steel and forged metal alloys, they feature extensively researched ergonomic designs so they work well and last a lifetime. Swiss-made, except where noted.



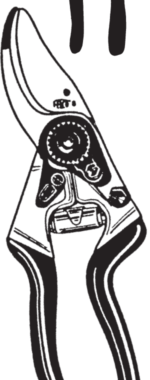
Felco F160 Pruners A very lightweight pruner with composite fiber handles, hardened steel blade and anvil. Angled head and handles are ergonomically designed to reduce the strain of hours of pruning. Two sizes: 160S for smaller hands and 160L for larger hands. May be used in either hand.

9004 A: *160S small (0#) for $40.00*
9005 A: *160L large (0#) for $40.00*



Felco #14 Pruners The most compact and lightweight pruners Felco offers. Classic metal handles. At 6.9 oz, this tool is about 20% lighter than the standard Felco #8 pruners and will give those with small hands full leverage advantage. That said, hands of all sizes will enjoy this tool for detailed work where maneuverability and getting into tighter spaces is of the essence. Rated to cut up to 0.7" caliper. Right-handed.

9006 A: *#14 right-handed (0#) for $61.00*



Felco #6 Pruners Designed for a medium-sized hand, otherwise just like the Felco #8 pruners. Customer Anne Greensfelder, an occupational therapist specializing in hands, explained that most women who use the #8 can't open it all the way so don't get the full leverage advantage. Ideal for pruning grape vines, shrubs and trees. The smaller size allows cuts closer to the stem. 7.6 oz. Rated to cut up to 0.8" caliper. Right-handed.

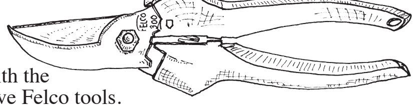
9007 A: *#6 right-handed (0#) for $65.25*

Felco #7 or #10 Pruners Features a rotating handle that allows fingers to move naturally, reducing the fatigue and blistering brought on by a hard day's pruning. Requires less effort than conventional pruners.

9010 A: *#7 right-handed (0#) for $90.00*
9011 A: *#10 left-handed (0#) for $90.00*

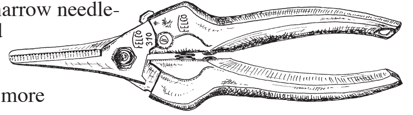
Felco #8 or #9 Pruners The classic Felco hand pruners: heavy-duty, lightweight, comfortable to hold. Excellent cutting action. Blade features a sap groove and soft-wire cutter. Easy to adjust and sharpen. 8.8 oz. Rated to cut up to 1" caliper.

9013 A: *#8 right-handed (0#) for $67.50*
9014 A: *#9 left-handed (0#) for $67.50*



Felco #300 Flower Shears
Useful for light pruning, deadheading and cutting stems for arranging. Manufactured in Italy with the same fine steel as the more expensive Felco tools.

9016 A: *flower shears (0#) for $22.50*

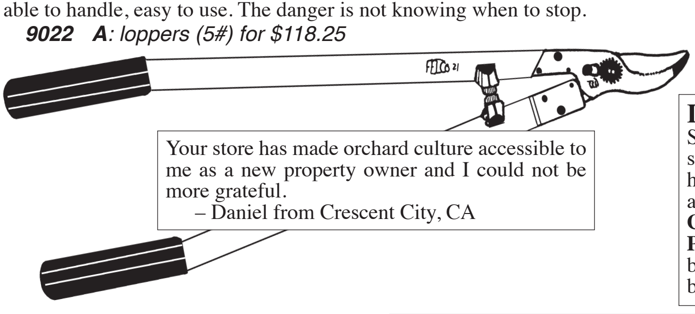


Felco #310 Harvest Shears Fruit and vegetable harvesting shear, lightweight with narrow needle-nose head for harvesting grapes and other produce. Great for pruning nightshades, too! Manufactured in Italy with the same fine steel as the more expensive Felco tools.

9019 A: *harvest shears (0#) for $21.50*

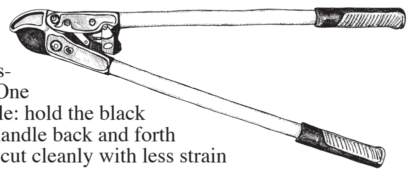
Felco #200-A Loppers An excellent bypass-type lopper with 17" tubular aluminum handles capable of cutting branches up to $1\frac{1}{2}$" diameter. Comfortable to handle, easy to use. The danger is not knowing when to stop.

9022 A: *loppers (5#) for $118.25*



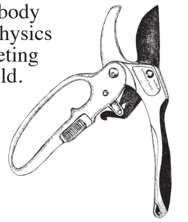
> Your store has made orchard culture accessible to me as a new property owner and I could not be more grateful.
> – Daniel from Crescent City, CA

MORE CUTTING TOOLS



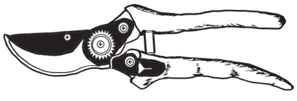
Ratcheting Loppers
Lop with ease! These loppers use a simple ratcheting mechanism to increase the pressure from your grip five-fold. One red handle and one black handle: hold the black handle still and move the red handle back and forth several times. The branch will cut cleanly with less strain and fatigue than with traditional loppers. Because these use an anvil-type cutting mechanism that can crush plant tissue, best to limit their use to clearing brush, and opt for the bypass-type **9022** Felco Loppers when pruning fruit trees and woody ornamentals. Accommodates branches up to $1\frac{1}{2}$". Overall length 25". Comfortable rubberized grip. Manufactured in Taiwan.

9023 A: *ratcheting loppers (5#) for $58.50*



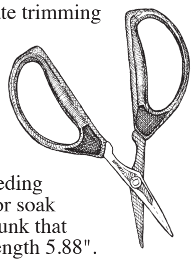
Ratcheting Pruners If you have arthritis or low upper-body strength, you may find pruning jobs a challenge. Simple physics to the rescue! These anvil-type pruners use a simple ratcheting mechanism to increase the pressure from your grip five-fold. Simply depress and release the handle several times. Cuts fibrous cannabis stems more cleanly than conventional pruners. Accommodates branches up to 1". Best to opt for the bypass-type Felco pruners when pruning fruit trees and woody ornamentals. Overall length 8". Comfortable rubberized grip and a handguard to protect your knuckles from thorny bushes. Manufactured in Taiwan.

9024 A: *ratcheting pruners (0#) for $28.00*



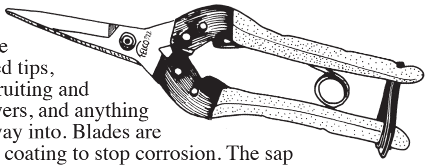
OTC Bypass Pruners Cut garlic scapes, harvest tomatoes, greens and herbs. Gets the job done, but inexpensive enough for apprentice crews or careless gardeners. Manufactured in Taiwan.

9025 A: *right-handed (0#) for $11.75*



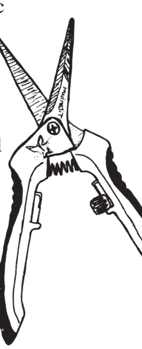
Titanium Trimming Scissors Everybody's got their favorite style of scissors for accomplishing those lengthy delicate trimming jobs efficiently and without strain. We like this pair because it features many of the same ergonomic and precision-oriented qualities as the beloved Chikamasa model B500-SLF, without contributing to the "forever chemical" problems of fluorine coatings (Teflon). Thankfully, these titanium-coated blades also resist sap buildup and corrosion. You'll have to clean them eventually, but you can trim for hours without needing to wash them. Rub them down with isopropyl alcohol or soak them in oil between trimming sessions to remove the gunk that does accumulate. Blade length 1.57" and overall tool length 5.88". Manufactured in Taiwan.

9026 A: *trimmers (0#) for $16.50*



Felco #322 Trim and Pick Snips Slim sharp shears for seriously snappy snips! As OGS coordinator Renee puts it, "this style is indispensable on the farm—it is the go-to pruner for most any garden tending task." The blades are straight with slightly rounded tips, which prevents damage in fruiting and vining crops, herbs and flowers, and anything else you must weave your way into. Blades are carbon steel with chromium coating to stop corrosion. The sap groove mitigates buildup and provide consistently smooth cutting. The stainless steel spring mechanism makes for ergonomic handling, as do the shock absorbers. Don't mess around with cheaper look-alikes—invest in Felco-made tools. Weighs in at a mere $\frac{1}{4}$ pound. Overall tool length $7\frac{1}{2}$".

9027 A: *snips (0#) for $20.75*

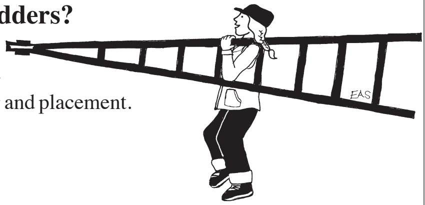


Precision Curved Shears For detailed pruning and harvesting jobs, reach for these sharp pointy spring-loaded shears. The curved blades are great for fine work on tomatoes, peppers, eggplant, cannabis, cutflowers and whatever else needs snipping. Titanium-coated blades resist sap buildup and corrosion. Very lightweight and comfortable so you can trim for hours on end. Blade length 2" and overall tool length 7". Manufactured in Taiwan.

9029 A: *shears (0#) for $17.00*

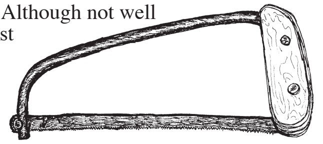
Looking for Orchard Ladders?

Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement.
Contact the manufacturer:
Peter Baldwin, 207-722-3654
baldwinappleladders.com
baldwinpetert@gmail.com



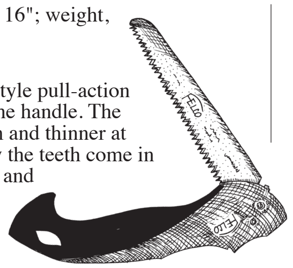
PRUNING SAWS

Replacement blades for pruning saws are available on our website.



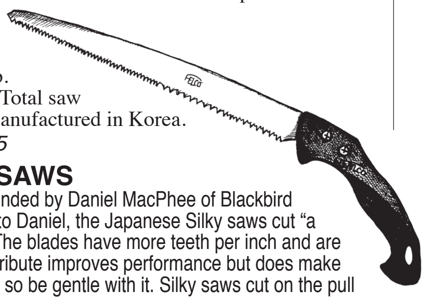
Wheeler Pruning Saw John Bunker says, "Although not well known outside the orchard trade, this is the best all-around pruning saw there is. I never prune a tree without it. Looks like a hacksaw and cuts like a sharp knife through soft butter. The blade can be installed to cut on the pull or push stroke." We much prefer the pull stroke. Wooden handle, arched metal frame. 10 teeth/inch. Blade length, 14"; total saw length, 16"; weight, 11.5 oz. Manufactured in the USA.

9031 A: saw (0#) for $57.50



Felco #600 Folding Pruning Saw Japanese-style pull-action pruning saw with a locking blade that folds into the handle. The patented design of the blade, thicker at the bottom and thinner at the top, prevents clogging and binding, since only the teeth come in contact with the wood. Works well in tight places and cuts branches up to 4" in diameter. Overall saw length, 14"; blade length, 6"; weight, 4.9 oz. Manufactured in Korea.

9037 A: saw (0#) for $32.50

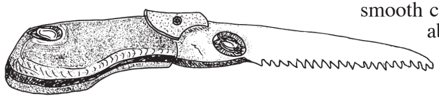


Felco #611 Straight Pruning Saw Larger pruning saw with durable ergonomic non-slip plastic handle. 13" blade features the same patented Japanese design as the Felco #600 model, cuts very smoothly on the pull stroke. Hard chrome plating prevents rust. Easily cuts 5–6" limb. Comes with a plastic blade sheath. Total saw length is $19^{3}/_{4}$"; weight, 13.1 oz. Manufactured in Korea.

9038 A: saw (2#) for $57.75

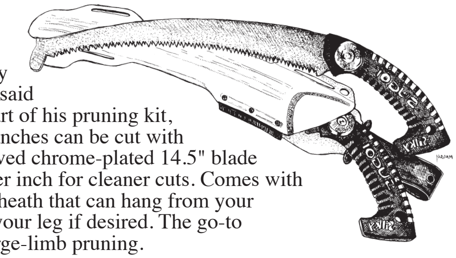
SILKY SAWS

Our line of Silky saws comes recommended by Daniel MacPhee of Blackbird Rise Farm in Palermo, ME. According to Daniel, the Japanese Silky saws cut "a million times better" than Felco saws. The blades have more teeth per inch and are thinner and more flexible. The latter attribute improves performance but does make the blade more susceptible to bending, so be gentle with it. Silky saws cut on the pull stroke. Manufactured in Japan.



Silky Pocketboy Folding Saw This compact saw with a 5" blade is nicknamed "Little Giant" due to its colossal cutting capacity. Delivers incredibly smooth clean cutting with remarkable speed, making this the go-to saw for pruning and topworking limbs 4" diameter or less. The clean cuts allow the tree to heal well. This little fella has found its following among not only orchardists and landscapers, but also woodworkers, arborists, campers and survivalists. Given its handy size, why would you go anywhere without it? Blade, with 8.5 non-set teeth per inch, folds into a black nonslip rubberized handle. Comes with a nifty plastic carrying case you can attach to your belt.

9040 A: saw (0#) for $59.00

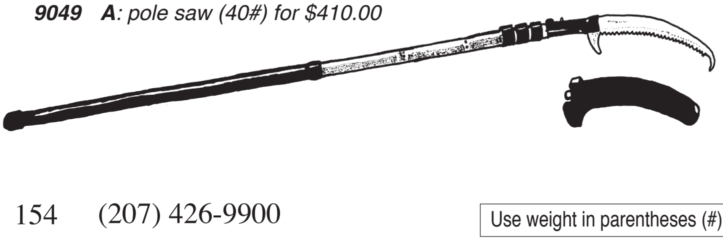


Silky Sugoi Straight Pruning Saw & Scabbard *Sugoi* is Japanese for amazing and awesome! Michael Phillips called this pull saw "the mighty Silky limbing saw" and said that with this integral part of his pruning kit, "substantial scaffold branches can be cut with little effort." Gently curved chrome-plated 14.5" blade with 5.5 non-set teeth per inch for cleaner cuts. Comes with a bright yellow plastic sheath that can hang from your belt and secure against your leg if desired. The go-to saw for some serious large-limb pruning.

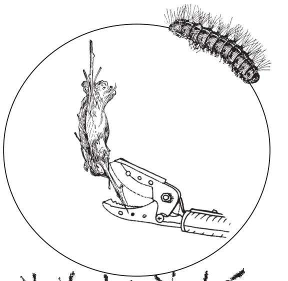
9043 A: saw & scabbard (2#) for $135.50

Silky Hayauchi Pole Saw *Hayauchi* is Japanese for 'fast beating'—as in drumming or typing. It also makes for fast fluid sawing. 15.4" high-carbon steel blade with 5.5 teeth per inch extends from an aluminum oval pole that telescopes from 8' to an astounding 21'! With this versatile saw, you'll be able to stand safely on the ground while dexterously pruning limbs that would otherwise be impossible to reach without tree-climbing gear or a tall ladder. Fedco board member David Shipman has owned one for many years and he calls it his favorite landscaping tool. Includes a rigid plastic blade cover. 6.9 lb working weight (the 40 lb shipping weight reflects the awkward size).

9049 A: pole saw (40#) for $410.00

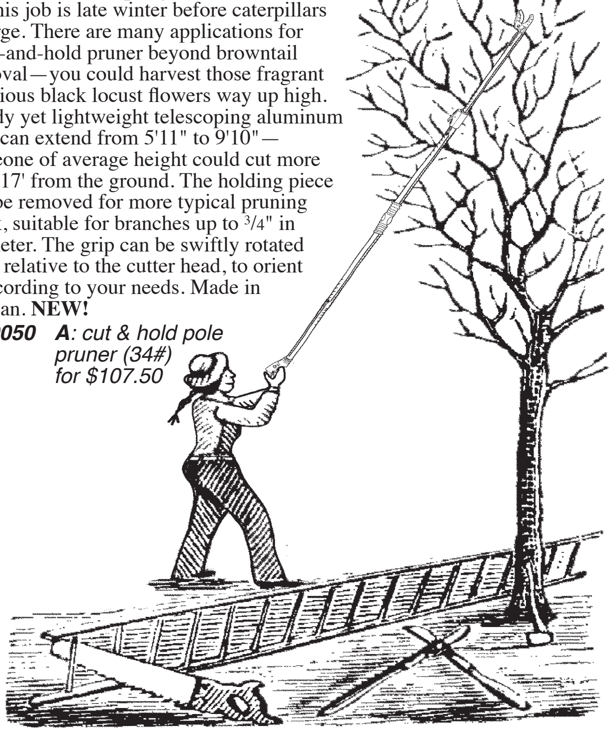


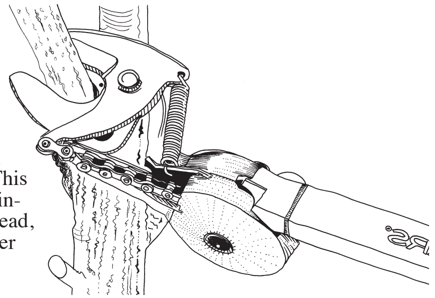
POLE PRUNERS



Cut & Hold Pole Pruner Every winter Fedco veteran and arboreal enthusiast Mike Smith uses this type of pole pruner to remove browntail caterpillar nests from his orchard. The distinctive cut-and-hold feature allows you to grab the lopped off nest and release it over a collection bucket, so you can later burn the nests or drown them in soapy water. (If you just leave nests on the ground, the caterpillars can survive and make their way back to the tree in spring.) The ideal time for this job is late winter before caterpillars emerge. There are many applications for a cut-and-hold pruner beyond browntail removal—you could harvest those fragrant delicious black locust flowers way up high. Sturdy yet lightweight telescoping aluminum pole can extend from 5'11" to 9'10"—someone of average height could cut more than 17' from the ground. The holding piece can be removed for more typical pruning work, suitable for branches up to $^{3}/_{4}$" in diameter. The grip can be swiftly rotated 180° relative to the cutter head, to orient it according to your needs. Made in Taiwan. **NEW!**

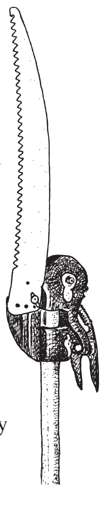
9050 A: cut & hold pole pruner (34#) for $107.50





Fiskars® Ergo Power Pole Pruner with Saw Blade We polled the pruning professionals on our staff, and they ranked this as a cut above all the rest on the market. What sets this pole pruner apart is its innovative ergonomic ropeless design. While other pole pruners involve a free-dangling rope you pull to make cuts, this model has the rope encased within the pole, so the user pulls a sleeve along the shaft to make the cut with a natural and efficient arm motion. This pull-action transfers to chain-drive gearing at the cutterhead, generating impressive power with minimal effort. You can nimbly direct the head from limb to limb for rapid-fire cutting. The cutterhead has a 230° adjustment range for pruning at tough angles. Rated to slice through $1^{1}/_{4}$" diameter wood, the fully hardened precision-ground blade stays sharp for ages, and the low-friction coating helps it glide through wood while resisting rust and sap buildup. The sturdy aluminum pole telescopes from 7.9' to 12', yet the overall tool weight is only 4.3 lb! A handy knob at the very bottom of the pole can be pulled down to make a cut when you've extended your arms to their maximum reach. A favorite of Fedco Trees founder John Bunker, who encouraged us to carry it. Also recommended by OGS coordinator Scott Ferguson, who loved using this pruner in the fruit orchards of Oregon. Includes a saw blade (see **9057** below) that can be attached when you're pruning limbs larger than $1^{1}/_{4}$" thick. Comes with a full lifetime warranty from Fiskars. **NEW!**

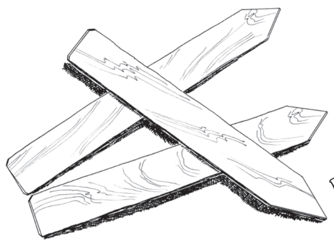
9051 A: power pole pruner (40#) for $137.00

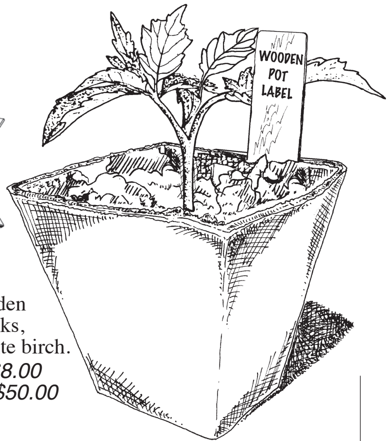


Replacement Saw Blade For Fiskars Pole Pruner Saw blade only, for use with **9051** Fiskars Pole Pruner. From the safety of the ground, this WoodZig® blade allows you to power through thick branches up high. Comes with a full lifetime warranty from Fiskars. 15" of teeth; 18" overall length. **NEW!**

9057 A: saw blade for pole pruner (0#) for $16.50

GARDEN MARKERS, STAKES & TAGS



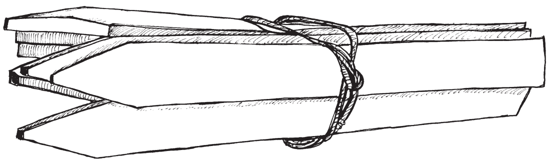


Wooden Pot Labels Untreated wooden sticks for labeling seedlings. 5x5/8" sticks, made in Maine from New England white birch.

9289 ***A**: bundle of 50 (0#) for $8.00*
***B**: case of 1000 (5#) for $50.00*

Treated Wooden Garden Stakes Treated with non-toxic white paint, these are the official stakes in Fedco trials. At the end of the summer, names stand out clearly and the stakes show little deterioration, even where they have been in contact with the soil. 12x1 1/8". Compliant with USDA National Organic Program guidelines. Made in Maine.

9292 ***A**: bundle of 25 (0#) for $10.00*
***B**: case of 250 (10#) for $75.00*

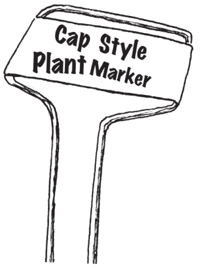


Field Stakes You won't lose these variety markers in the undergrowth. Longer and thicker than the garden stakes, these untreated field markers are easy to spot in the thickest bean bushes. 18 x 1 1/8 x 1/4". Made in Maine.

9298 ***A**: bundle of 25 (2#) for $17.50*
***B**: case of 100 (10#) for $67.50*

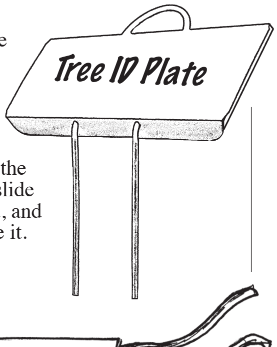
Cap Style Plant Markers Zinc-coated nameplates on galvanized steel legs provide permanent outdoor labeling. 10 1/2" tall with a 7/8x2 1/2" horizontal nameplate. Comes with marking pencil.

9304 ***A:** bundle of 25 (0#) for $18.00*
***B:** bundle of 100 (5#) for $65.75*



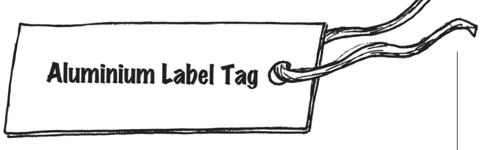
36" Tall Tree ID Plates Fedco exclusive! A superb solution to the perennial problem of ID tags that fall off, fade or strangle the tree or shrub. An important step in preserving rare varieties is labeling them well. Although we'll always love making ID tags out of old vinyl siding, these 36" tall galvanized metal wire stakes with upward-tilted heavy-duty zinc nameplates (3 1/2x1 1/4") offer a more fail-proof system because they can be securely staked into the ground, they're tall enough to show above an overgrown understory, and you can use a ballpoint pen to emboss the plant name into the zinc plate. For better visibility in the short-term, we recommend you write over that embossing with the included marking pencil. Light assembly required: slide the nameplate up the double wire, just past the bend, and press gently on the center of the nameplate to secure it. **NEW!**

9305 ***A:** bundle of 10 (4#) for $13.75*
***B:** bundle of 50 (8#) for $68.00*



Aluminum Label Tags
Permanent all-weather tags with wires, especially for labeling trees. Can write on both sides.

9310 ***A**: 25 tags (0#) for $9.75*

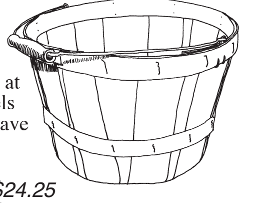


On the web: go to **fedcoseeds.com** and click on Organic Growers Supply for:

- online ordering
- downloading paper order forms
- manufacturer information and contacts
- out-of-stock and backorder information
- items not listed in paper catalog
- pricing updates

No one can beat your seed quality, growing supplies, catalog, and of course, your customer service... whoever developed your website and ordering system is a nerd genius.
– Brenda & Frank from Belgrade, ME

PACK UP THE HARVEST

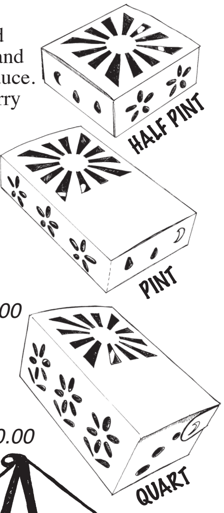


Harvest Baskets Old-time wooden lath and wire baskets in bushel, half-bushel and peck sizes. (Half-pecks available on our website.) Classic and effective. We sell hundreds every year at the Common Ground Fair. Bushels and half-bushels have a wire loop on each side for handles, pecks have a wire bail with a wood handle. Made in PA.

9336 ***A**: 3 peck baskets (5#) for $24.75*
9337 ***A**: 3 half-bushel baskets (10#) for $24.25*
9338 ***A**: 3 bushel baskets (10#) for $26.25*

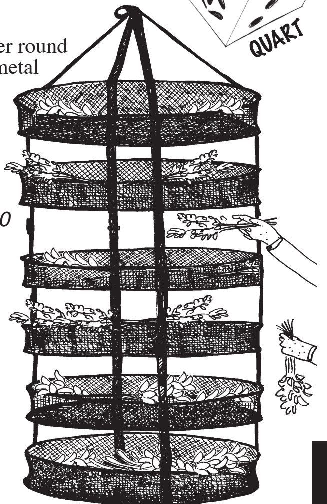
Sun Sugar Boxes Recyclable compostable cardboard alternative to those plastic clamshells! They are lidded and stackable so they do a better job of protecting your produce. Labels will affix to them more easily than to molded berry boxes. They ship flat. The larger boxes assemble in five easy steps (the manufacturer says that with a little practice you can fold 180 boxes an hour). The half-pints have an ingenious auto-folding design and assemble in one motion. Exterior dimensions assembled: Half-pint is 4 x 4 1/8 x 1 1/2"; Low-profile pint is 7 x 4 1/2 x 1 1/4"; Quart is 7 x 4 1/4 x 3". 2-quart (great for tomatoes) is 6 5/8 x 7 1/2 x 3".

9354 ***A**: 25 half-pints (0#) for $23.25*
***B**: case of 300 half-pints (10#) for $125.00*
9355 ***A**: 25 pints (0#) for $18.00*
***B**: case of 300 pints (28#) for $125.00*
9356 ***A**: 25 quarts (0#) for $24.25*
***B:** case of 200 quarts (22#) for $117.00*
9357 ***A**: 25 2-qt boxes (0#) for $28.00*
***B**: case of 300 2-qt boxes (37#) for $180.00*



Collapsible Drying Racks 36" diameter round shelves of durable polyester netting in a metal frame. Center strap for improved weight support. Perfect for drying flowers and herbs of all types. Rack has 6 tiers that snap together so you can reconfigure them to suit your needs. A total of 42 sq ft of surface area!

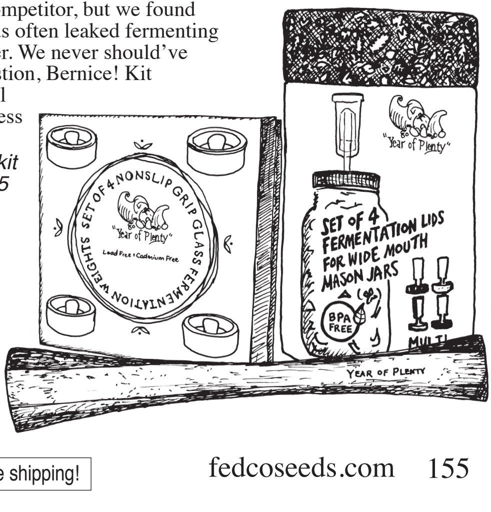
9358 ***A**: drying rack (10#) for $82.00*



My profound love of Fedco seeds is only surpassed by my inability to control my passionate feelings for guacamole.
– Paul from Ashley, OH

Airlock Fermentation Kit for Mason Jars Once you try lacto-fermenting in mason jars with these airlock lids, you may never go back to ceramic crocks, even for large batches! This simple efficient system works with wide-mouth jars (3 3/8" outer diameter) to produce delicious and nutritious probiotic foods. You provide the wide-mouth jars, and this kit provides 4 easy-to-use BPA-free airlock lids with silicone gaskets, 4 sure-grip glass weights, and one 12" bamboo tamper. Fedco Seeds coordinator Bernice Nadler has been singing the praises of this kit since 2019: "Other fermentation methods, such as in crocks, often develop surface mold that has to be scraped off. This has never been an issue with my airlock kit. It has expanded my culinary repertoire." We trialed these airlock lids against a hip-looking waterless competitor, but we found that the waterless lids often leaked fermenting fluid onto the counter. We never should've doubted your suggestion, Bernice! Kit developed by a small family-owned business in PA. **NEW!**

9360 ***A**: airlock kit (4#) for $42.25*


SET OF 4 NONSLIP GRIP GLASS FERMENTATION WEIGHTS
"Year of Plenty"
Lead Free • Cadmium Free
"Year of Plenty"
SET OF 4 FERMENTATION LIDS FOR WIDE MOUTH MASON JARS
BPA FREE
MULTI
YEAR OF PLENTY

DRIP IRRIGATION

Drip irrigation applies moisture where it is needed, at the plants' roots, so it conserves water and does not cause mold problems. The drip method helps crops get over transplant shock and get established, and ensures adequate water supply until the rain comes. Also useful in greenhouses.

We recommend sketching your garden and proposed irrigation system before you order to ensure that you get all the pieces you need. For help in designing your own system see: **fedcoseeds.com/ogs/drip.htm**

STARTER & EXPANSION KITS

We offer two kinds of kits: garden row-crop kits equipped with low-flow drip tape for a uniform distribution of moisture along the tapes, and an orchard-crop kit with emitter tubing (see next page).

Garden Irrigation Starter Kit For 200' of irrigation. Includes the Spigot-Connection Set (below) and

- Setup instructions
- 200' of low-flow drip tape (5/8" diameter)
- 100' of 1/2" polyethylene mainline tubing
- 2 mainline ends with screw caps - removable for flushing line
- Coupler (1/2") - joins two pieces of mainline tubing
- 10 drip-tape fittings which plug into the mainline
- 10 drip-tape sleeve ends to seal the end of a line of drip tape
- 2 tape couplers to repair breaks or tears in the drip-tape line
- 20 wire holddowns
- Manual punch - makes 1/4" holes to install drip tape
- 10 two-way plugs - fill holes in mainline if you relocate drip-tape fittings

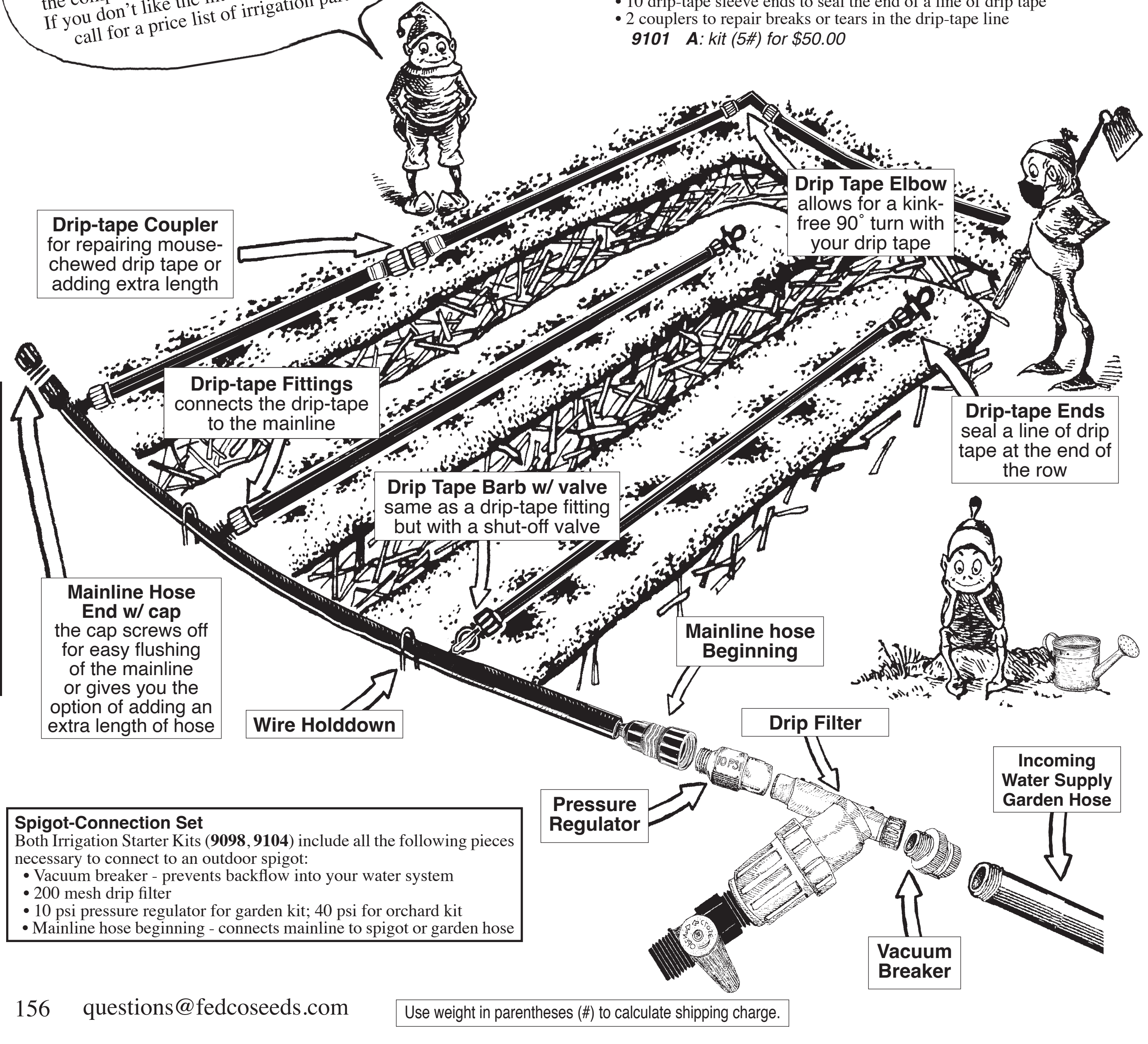
9098 ***A****: kit (10#) for $126.50*

Garden Irrigation Expansion Kit Gives you another 200' of irrigation. Contains

- 200' of low-flow drip tape
- 10 drip-tape fittings which plug into the mainline
- 10 drip-tape sleeve ends to seal the end of a line of drip tape
- 2 couplers to repair breaks or tears in the drip-tape line

9101 ***A****: kit (5#) for $50.00*

All components shown in this diagram can be found individually on our website. Please note that our irrigation kits do NOT include all of these components, but only the components listed in the kit description. If you don't like the interweb, write to us or call for a price list of irrigation parts.


Drip Tape Elbow allows for a kink-free 90˚ turn with your drip tape
Drip-tape Coupler for repairing mouse-chewed drip tape or adding extra length
Drip-tape Fittings connects the drip-tape to the mainline
Drip-tape Ends seal a line of drip tape at the end of the row
Drip Tape Barb w/ valve same as a drip-tape fitting but with a shut-off valve
Mainline Hose End w/ cap the cap screws off for easy flushing of the mainline or gives you the option of adding an extra length of hose
Mainline hose Beginning
Wire Holddown
Drip Filter
Incoming Water Supply Garden Hose
Pressure Regulator
10 PSI
Vacuum Breaker
ES

Spigot-Connection Set
Both Irrigation Starter Kits (**9098**, **9104**) include all the following pieces necessary to connect to an outdoor spigot:

- Vacuum breaker - prevents backflow into your water system
- 200 mesh drip filter
- 10 psi pressure regulator for garden kit; 40 psi for orchard kit
- Mainline hose beginning - connects mainline to spigot or garden hose

Orchard Irrigation Kit So you've planted (or are about to plant) a carefully spaced and fertilized new orchard. Make sure the plants get the water they need! Most fruit trees, shrubs and canes require the equivalent of 0.6–1.2 gallons of water per square foot, every week throughout the growing season. For an apple tree, this means about 5 gallons a week. We designed this kit to make it more effective at delivering water where your plants need it most, and to make assembly and disassembly easier. The star of the show is **9125** Emitter Tubing, which we learned about from landscaping gurus Robert Kourik and Lee Reich. This tubing makes it a cinch to supply each plant with two or more emitters, and it minimizes leaking and clogging. This kit will irrigate up to 10 trees spaced every 25'. If you're irrigating bushes, shrubs, or canes with closer spacing, you'll want additional fittings to match the number of plants. Setup instructions are included. Requires two 25' garden hoses, not included. Email ogs@fedcoseeds.com for help.

Includes the Spigot Connection Set (see bottom opposite), and:

- 200' of 1/2" polyethylene mainline tubing
- 50' Emitter tubing, 18" spacing
- Hose Y w/ valves
- Mainline hose beginning (one additional)
- 2 L-couplers
- 8 T-couplers
- 10 Figure-8 ends
- 50 Earth Staples

9104 ***A****: kit (22#) for $193.50*

IRRIGATION EXTRAS

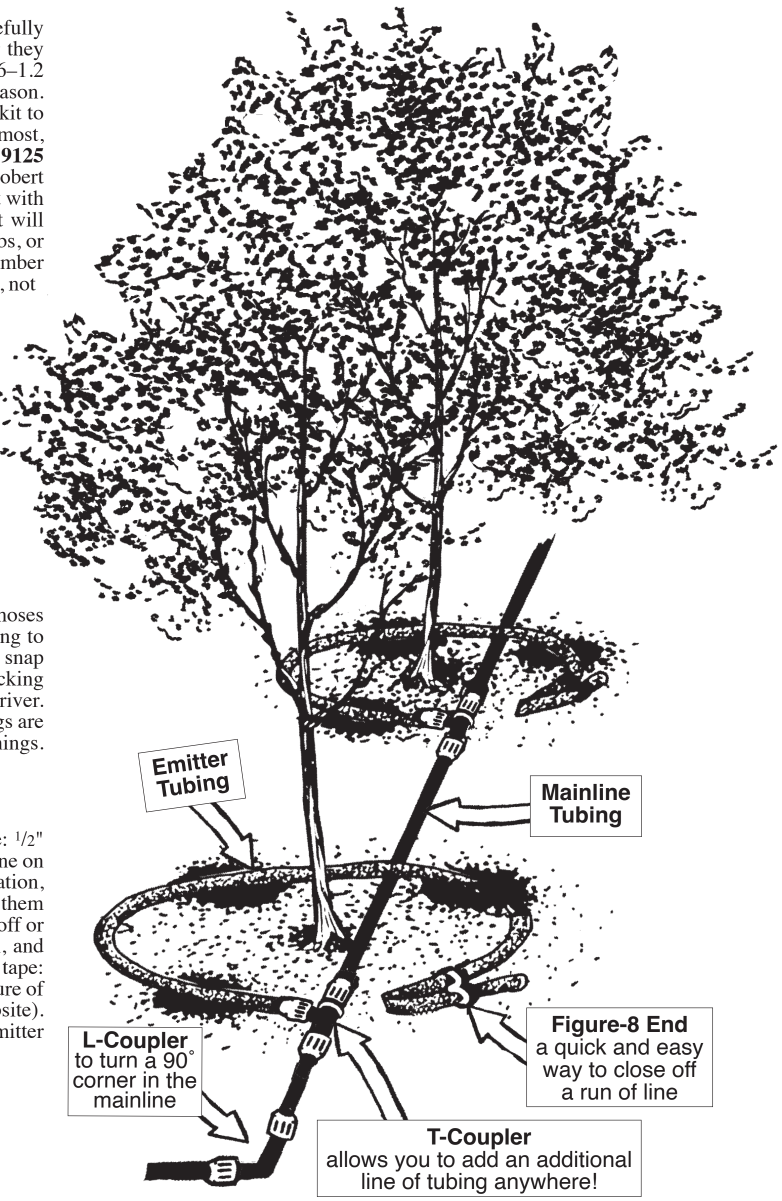
All components of our kits are available individually on our website.

Quick Connect Hose Fittings For anyone who changes or moves hoses on a regular basis, this nifty attachment is a lifesaver! Rather than having to screw and unscrew your hose to the water source, these fittings simply snap together for a watertight seal. To release, just depress the collar—the locking mechanism works much like a quick-release bit holder on an impact driver. You don't even have to turn the water off—water flows only while fittings are connected! *Note:* This product requires a Prop 65 warning. See p65warnings.ca.gov.

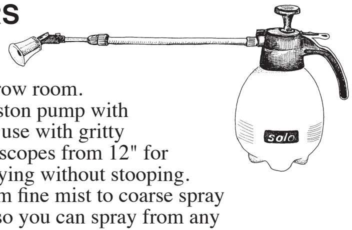
9108 ***A****: 2-piece set (0#) for $18.50*
9109 ***A****: male piece only (0#) for $5.50*

Emitter Tubing Like a hybrid between mainline tubing and drip tape: 1/2" hose with pre-installed 1 gph emitters every 18" or 36". May be used alone on crops like squash, tomatoes or highbush blueberries. For orchard irrigation, run circles or semicircles of emitter tubing around each tree and connect them with mainline tubing from your water source. No external parts to snap off or leak, provides consistent water flow regardless of slope or hose length, and does not clog as easily as soaker hose. Much more durable than drip tape: with proper care, tubing will last 10 years or more. Requires water pressure of 10–50 psi. We recommend **9114** 40 psi Pressure Regulator (on our website). 18" emitter tubing has a maximum single row length of 350'. 36" emitter tubing has a maximum single row length of 550'.

9122 ***A****: 100' with 36" spacing (5#) for $90.00*
B*: 500' with 36" spacing (30#) for $300.00*
9125 ***A****: 100' with 18" spacing (5#) for $92.75*
B*: 500' with 18" spacing (30#) for $307.50*

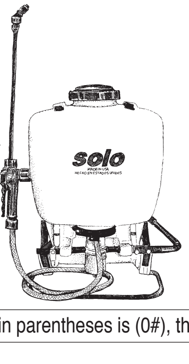

Emitter Tubing
Mainline Tubing
L-Coupler to turn a 90° corner in the mainline
Figure-8 End a quick and easy way to close off a run of line
T-Coupler allows you to add an additional line of tubing anywhere!

SPRAYERS



SOLO® 420 2-L Hand Sprayer
Reliable Solo quality for the home gardener, or for use in the greenhouse or grow room. Polyethylene tank has a 2-liter capacity. Piston pump with Viton seals for chemical resistance. (Don't use with gritty materials like Surround.) Nozzle wand telescopes from 12" for close-up work to 23" for ground-level spraying without stooping. Wand is not removable. Nozzle adjusts from fine mist to coarse spray and is multi-directional with a drip guard, so you can spray from any direction—useful for hitting the undersides of leaves! A compact and versatile little workhorse of a sprayer. Manufactured in Taiwan.

9223 ***A****: sprayer (5#) for $29.75*

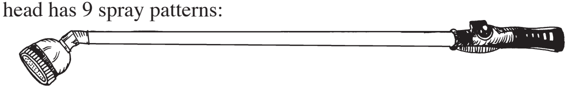


SOLO® Backpack Sprayer This tried-and-true Solo deluxe model offers an adjustable pressure cylinder, a brass nozzle, excellent parts availability and a solid reputation. We've been selling this sprayer for a few years and pretty much everyone has been happy. Four-gallon polyethylene tank. Horizontal spray distance 25'; vertical spray distance 20'. Diaphragm pump is suitable for spraying wettable powders like Surround, which will quickly destroy piston pumps. Please join us in eschewing cheap sprayers! Also, please do your part to extend your sprayer's life by assembling gently and cleaning thoroughly after each use. We have learned that the black plastic piece that connects to the hose from the pump handle can be a bit tender: make sure the two white bolted plastic pieces are firmly tightened, and don't pump the sprayer roughly. However, SOLO offers a pretty generous one-year warranty on this sprayer and will send you free replacement parts within that timeframe if necessary: just call them at 1-800-765-6462. Manufactured in the USA.

9231 ***A****: sprayer (30#) for $199.25*

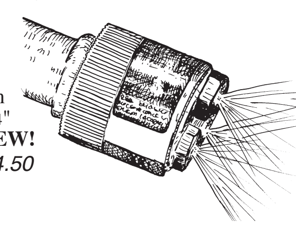
HAND WATERING

RainSelect 30" Rain Wand This wand offers the durability, versatility and ease of use you've always wanted for watering your plants. Fedco Seeds purchaser Robin praises its plant-friendly water patterns, the clever ergonomic thumb-control valve for precisely dialing in the flow rate, and the 30" reach, which for her makes this wand "the best for hand watering I have used." The head has 9 spray patterns: Stream, Shower, Rain, Center, Cone, Angle, Mist, Flat and Fan. At 40 PSI, the flow rate ranges from 1–4 gal per minute, depending on pattern. For seed-starting and watering delicate plants, you can swap out the 9-pattern head for the gentle **9208** Fogg-It Nozzle. Made with "Spacecraft Grade" aluminum alloy, brass, impact-resistant plastic and thermoplastic rubber on the grip. Made in the USA. **NEW!**



9201 ***A****: rain wand (4#) for $39.00*

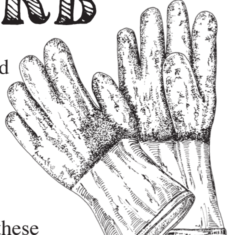
Fogg-It Nozzle 1/2 GPM If you're tired of watering heads that spray too hard and wash out your seeds, you can now fogg-it-about-it! This solid brass head puts out a "superfine" (0.5 gal per minute) mist that is suitable for seed-starting or delicate plants of all kinds. If you want to fine-tune your watering, this head is not to be mist! Does not have its own on/off valve; we suggest attaching it to **9201** Rain Wand. Fits all standard North American 3/4" garden hose threads. Made in the USA. **NEW!**



9208 ***A****: fogg-it nozzle (0#) for $14.50*

If shipping weight in parentheses is (0#), the item qualifies for free shipping!

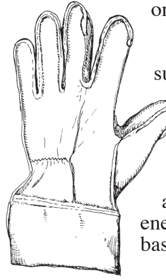
GARDEN GARB



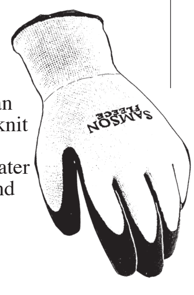
Waterproof Insulated Gloves The all-around best winter chore glove: no more wet cold fingers! The flocked acrylic lining is soft and warm, and the triple-dipped PVC coating remains flexible even at single-digit temperatures. They extend loosely over the wrists to cover your jacket cuffs. Generously sized: there's room to wear liner gloves in very cold weather.

9388 ***A**: one pair (0#) for $16.25*

Vermont Gloves You can't possibly work harder than these top-notch leather work gloves. Rugged goatskin body with a 4" cowhide cuff and double nylon stitching. The patented thumb design offers improved comfort and durability. Absolutely worth the investment: will outlast other leather work gloves three or four times over. They have been popular holiday gifts among our customers. A family business founded in 1920 in Randolph, VT, Green Mountain Gloves started out making silk dress gloves but soon developed a specialty in heavy-duty leather work gloves. Two customers contacted us in 2017 after NPR ran a story about the company's struggle to survive in an era of cheap imported competition: they were down to one sewing machine and four employees producing twenty dozen gloves a month, with no promise of a successor for the aging owner. Cheeringly, the company found a young successor after all, who shares his predecessors' values but has also revamped the company's online presence and branding (including a name change). The company's Luddite quirkiness and devotion to quality in a world that cuts corners, ignores human costs, and demands uniformity seemed to fit in with Fedco's values like hand and glove. And, like Fedco, Vermont Glove runs on solar energy! Use with thin wool liners for extra warmth. Size is based on measurement around knuckles.

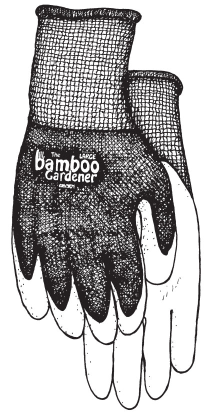


9390 ***A**: small 8-9" (0#) for $99.00*
***B**: medium 9-10" (0#) for $99.00*
***C**: large 10-11" (0#) for $99.00*
***D**: x-large 11-12" (0#) for $99.00*



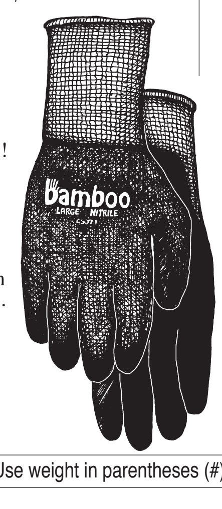
Samson Gloves Whether you need to kill a lion with your hands, or dig turnips out of half-frozen mud in late October, regular garden gloves just won't cut it anymore. Our Samson gloves will keep your fingers warm and protected in harsh gardening conditions; they may or may not confer superhuman strength, but you will definitely feel more comfortable. Fine-knit stretchy polyester shell is lined with thick soft acrylic fleece. The palm and fingers are dipped in natural latex to provide water resistance and good grip. Size is based on measurement around knuckles. Snug fit: order a size up if you're not sure.

9391 ***A**: medium 8-9" (0#) for $8.00*
***B**: large 9-10" (0#) for $8.00*
***C**: x-large 10-11" (0#) for $8.00*



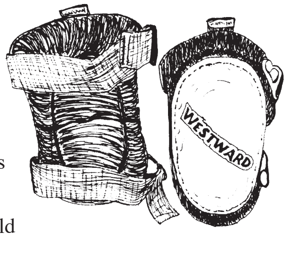
The Bamboo Gardener Rubber Palm Gloves We're always on the lookout for gloves that balance dexterity, durability and sustainability. The Bamboo Gardener does it all! Comfy, flexible, breathable and suitable for all kinds of weather. They wick away sweat in warm conditions, but they're also great paired with merino liners for working in frigid temps. The textured natural rubber-latex palm offers a solid grip, whether conditions are wet or dry. They last longer than your typical cotton or synthetic garden gloves, so it makes sense that they are machine washable, too! Elastic wrist closure keeps out dirt and debris. Made in China. **NEW!**

9394 ***A**: small 7-8" (0#) for $9.50*
***B**: medium 8-9" (0#) for $9.50*
***C**: large 9-10" (0#) for $9.50*



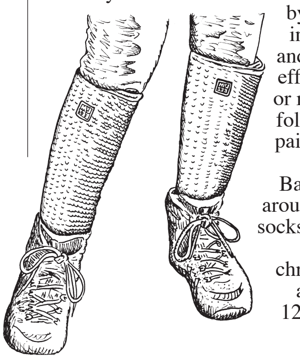
The Bamboo Gardener Nitrile Palm Gloves These supremely dextrous and comfortable gloves made with a seamless bamboo knit are our favorite, hands down! Whether it's gardening, home improvement or warehouse work, these are the go-to gloves for getting the job done when precision matters. Grippy, durable, breathable, moisture-wicking and habit-forming. You'll want pairs stationed wherever you're likely to put your hands to work. We recommend using them with merino liners when it's cold out. Nitrile coating resists puncture and abrasions. Elastic wrist closure keeps out dirt and debris. Machine washable. Made in Sri Lanka. **NEW!**

9396 ***A**: small 7-8" (0#) for $9.50*
***B**: medium 8-9" (0#) for $9.50*
***C**: large 9-10" (0#) for $9.50*
***D**: x-large 10-11" (0#) for $9.50*



Knee Pads Garden in comfort, with no more rocks denting your kneecaps! Unlike most knee pads, which buckle around the back of the knee, these pads feature two heavy-duty adjustable elastic straps with buckles: one at the lower thigh, one at the upper calf. This improves your comfort in a kneeling position and helps prevent the pads from falling down to your ankles when you walk. Made of thick foam with hard plastic polypropylene cap. Hand-washable with mild soap and warm water. Fits most people.

9398 ***A**: one pair (3#) for $30.25*

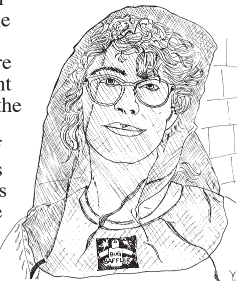


Lymeez 3D Mesh Tick Gaiters Here in New England, we need all the tick protection we can get. These innovative leg gaiters help us stay safe in all our outdoor endeavors. The patented mesh-fabric design features 3D hills and valleys that ticks instinctively explore, which slows their climb up your leg by 400–800% (according to lab tests) while exposing them to microencapsulated permethrin to repel and kill them. The permethrin treatment will remain effective through 50 warm washes. For the seasonal or recreational wearer, expect a pair to last 3+ years; folks who work outside for a living may need a new pair every year. Though these gaiters are breathable, they are not as lightweight and airy as **9442** Bug Bafflers. For optimal protection wrap gaiters tightly around ankles, wear socks over gaiters, and treat your socks with permethrin. Note: permethrin is a synthetic insecticide that resembles the pyrethrin found in chrysanthemums. Small/medium size fits calves 18" around; large/x-large fits up to 20". Both sizes are 12" tall. Tan color.

9440 ***A**: small/medium (0#) for $32.00*
***B**: large/x-large (0#) for $32.00*

Arm Guards Slipped over your forearms and gloves, the heavy close-woven canvas protects you from the unkind cuts of rose thorns, thistle spines and other prickly peril. Staffer Carol Doyle successfully pruned the nastiest portion of her blackberry patch without getting her shirt snagged or her arms scratched. She praised the Arm Guards for not restricting arm motion "and they are loose enough so they don't feel as if the circulation is being cut off by something too tight around the wrist and elbow." One size. One pair.

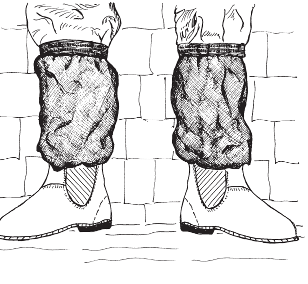
9401 ***A**: one pair (0#) for $12.00*



Bug Baffler Headnet What is the one sure sign that spring is really here and it's time to set out the transplants? Black flies. Slip on this headnet and work in comfort, smug in the knowledge that there will be no flies biting your face today. Lightweight fine-mesh black nylon lets breezes in and makes the outdoors liveable again with chemical-free insect protection. Patented hood design allows plenty of room for a hat, and seamless construction permits unobstructed vision. Elastic bands slip under arms to hold the hood securely in place. Perfect for bee observation. One size.

9441 ***A**: headnet (0#) for $10.50*

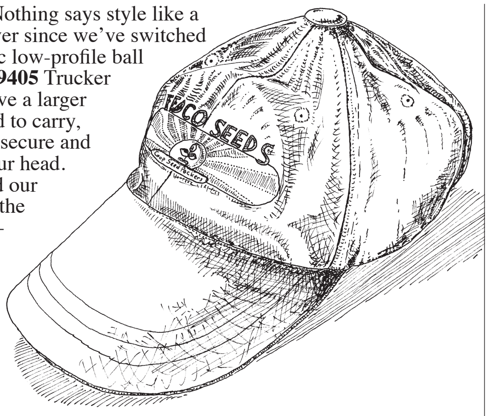
Bug Baffler Ankle Guards These days everyone in New England probably knows someone who has suffered from tick-borne illness. If humans manage to pollute and exploit themselves into oblivion, ticks will probably be the next dominant species on the planet. Meanwhile, here's a non-toxic and affordable layer of protection against the nasty little things. No need to wear your pants tucked into your socks—mesh ankle guards have stretch knit bands at the ankle and elastic bands at the calf to keep ticks and blackflies off your legs. Pull over socks before putting shoes on, then roll up over your pantlegs. One size.



9442 ***A**: one pair (0#) for $10.50*

FEDCO FASHIONS

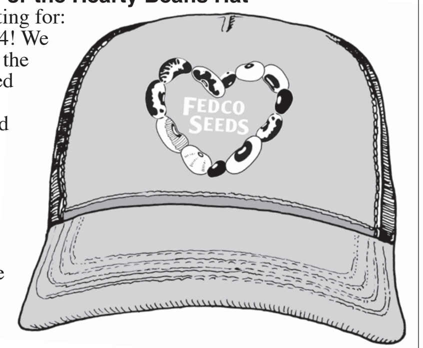
More styles are available on our website.



Organic Fedco Cap Nothing says style like a Fedco cap, better than ever since we've switched to organic cotton! Classic low-profile ball caps: different from our **9405** Trucker Hat. Our organic hats have a larger crown than what we used to carry, so the hat will feel more secure and will sit a bit lower on your head. Adjustable headband and our classic sunray logo with the slogan "Garden – Farm – Orchard." The grey cap has a black and white logo, while the rest have color logos. If you order a color that's out of stock, we'll send a different color. One size fits most. **NOW ORGANIC!**

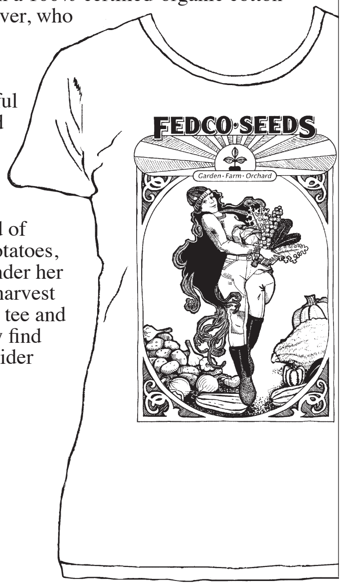
9404 ***A**: grey with black & white logo (0#) for $25.00*
***B**: black (0#) for $25.00*
***C**: blue (0#) for $25.00*
***D**: brown (0#) for $25.00*
***E**: green (0#) for $25.00*
***F**: purple (0#) for $25.00*

Organic Fedco Trucker Hat, or the Hearty Beans Hat



The moment we've all bean waiting for: a new trucker hat design for 2024! We know you'll love it. For starters, the black front panel and semi-curved bill are organic cotton, and the white mesh in the rear is recycled polyester. The embroidered design is "Fedco Seeds" outlined by heirloom dry beans arranged into a heart. Perfect for all the charming farming fashionistas in your life. Plastic adjustable snap closure. One size fits most. **NEW!**

9405 ***A**: trucker hat (0#) for $29.25*



Fedco Autumn Harvest Tee So many customers loved this design on our tote bag (**9450**) that we had to put it on a 100% certified-organic cotton shirt! The art is by Fedco's own Sarah Oliver, who explains the story behind her work: "This autumn-harvest drawing is one of a series inspired by Alphonse Mucha's 1897 Four Seasons. I love Mucha's graceful swirls and impeccable lines, and I enjoyed taking these ladies in their bedsheets and swoony poses and putting them into the well-worn rugged clothing of farmers and gardeners, surrounded by seasonal bounty. This one has an autumnal armload of brassicas, and is surrounded by squash, potatoes, onions and garlic. She might have bags under her eyes, but she can rest easier now that the harvest is in." Choose between a fitted light green tee and a straight-cut forest-green tee. *Note:* many find that the fitted shirt runs small; please consider ordering one size up.

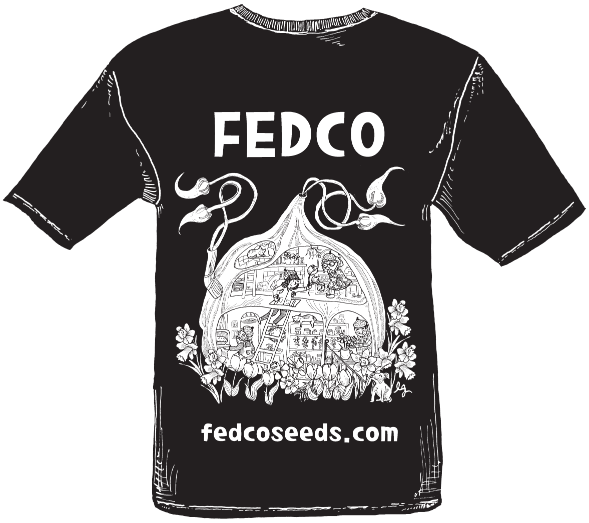
9414: light green fitted tee (0#) for $25.00
***A**: small* ***B**: medium*
***C**: large* ***D**: x-large*

9415: forest-green straight-cut tee (0#) for $25.00
***A**: small* ***B**: medium*
***C**: large* ***D**: x-large*

Fedco Supports MOFGA

The Maine Organic Farmers and Gardeners Association is a broad-based community that educates about and advocates for organic agriculture, illuminating its interdependence with a healthy environment, local food production, and thriving communities. Fedco is a longstanding part of that community (we even inherited the Organic Growers Supply operation from them!) and a regular donor. We encourage you to join us in supporting them by making a donation with your OGS order, either online or on the order form on page 173.

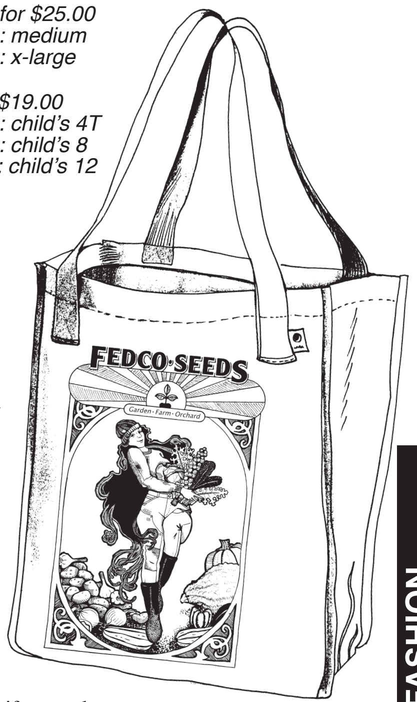
CERTIFIED ORGANIC BY MOFGA



Bulbs Tee The 2020 Bulbs catalog cover by artist Laura Grover elicited delighted squeals from everyone who saw it. Who can resist those little garden gnomes (and their little pets!) bustling about their bulb house surrounded by cheerful narcissi? We had to put it on a shirt, our first ever shirt to honor our smallest Fedco department. White graphic on black cotton, choose from adult or children's sizing. Crewneck straight-cut tee made in the U.S. from organic fair-trade cotton printed with water-based ink.

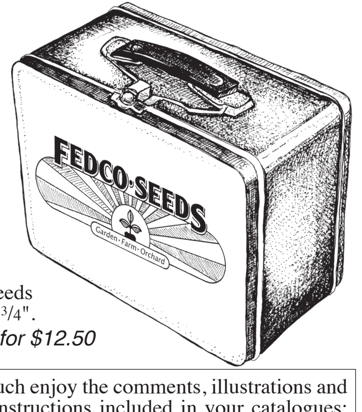
9420: adult-size tee (0#) for $25.00
***A**: small* ***B**: medium*
***C**: large* ***D**: x-large*
***E**: xx-large*

9421: child's tee (0#) for $19.00
***A**: child's 2T* ***B**: child's 4T*
***C**: child's 6T* ***D**: child's 8*
***E**: child's 10* ***F**: child's 12*



Fedco Canvas Tote Bag Celebrate Maine's plastic bag ban in style with this beautiful beige 100% certified-organic cotton canvas bag featuring the amazing artwork of Fedco's own Sarah Oliver. For the story on the design, see **9414/9415** Autumn Harvest Tee. Tote bag is $12^{1}/_{2}$" wide x $14^{1}/_{2}$" tall x 7" deep (square bottom), with 24" handles.

9450 ***A**: tote bag (0#) for $19.50*

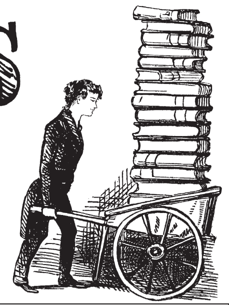


Fedco Carrying Case This nifty metal lunchbox serves myriad uses for kids, gardeners and farmers alike. Perfect for toting Scoobie snacks out to the field, or for holding your spare shear bolts on the tractor. We use ours to keep seed packets dry while gardening on drizzly days, as well as longterm seed storage and filing containers! It's easy to make your own dividers for different seeds with colored cardstock or scrap cardboard. Looks as old-school as our catalog with the sharp Fedco Seeds logo on a silver background. 4x6x$7^{3}/_{4}$".

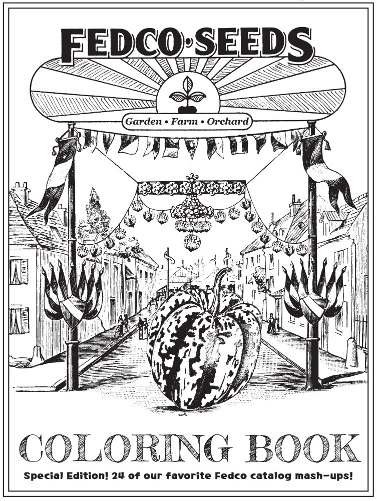
9452 ***A**: carrying case (0#) for $12.50*

> We so very much enjoy the comments, illustrations and growing/use instructions included in your catalogues; thank you ever so much for continuing to offer all of this despite increased costs to you.
> – Constance from King, NC

BOOKS



Looking for a title listed recently but not this year? Check our website for clearance titles. Reviews written by Aktan Askin, Roberta Bailey, Elisabeth Benjamin, John Bunker, Clayton Carter, Laura M. Childs, Lauren Cormier, Alice Coyle, Noah Dillard, jaye dos santos, Scott Ferguson, Andy Fitzpatrick, Khris Hogg, Nikos Kavanya, CR Lawn, Renee Manly, Jacob Mentlik, Sarah Oliver, Emily Pence, Jen Ries, John Paul Rietz, David Shipman, Emily Skrobis and Robin Storm.



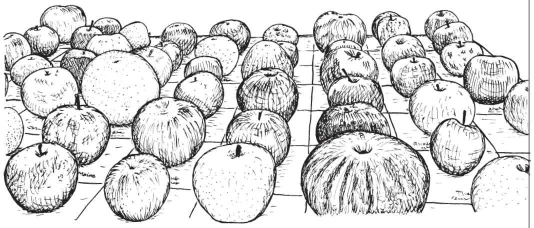
Fedco Coloring Book by the Fedco catalog crew, 48 pages, $10^{3}/_{4}$x$8^{1}/_{4}$, newsprint (printed one-sided so no bleed-through). Fedco catalogs are famous for black-and-white illustrations selected from ancient public domain engravings we find in old seed catalogs, horticultural books, and from Dover Publications. For decades our staff artists have combined these old images with original contemporary artwork to create fantastical mash-ups for our catalogs. Customer Amanda from Nacogdoches, TX, recently wrote to us, "Sounds silly, but I want to color the b&w drawings." Not silly at all, Amanda! With 26 full-page illustrations (including front and back covers), our exclusive coloring book features some mash-ups you might recall from past catalogs, and some brand-new ones, for an all-ages coloring fun fest. **NEW!**

9461A: *Fedco Coloring Book (0#) for $12.00*

Fedco Cover Art Whimsical and beautiful black-and-white art is a hallmark of Fedco's unique style, our way of counterbalancing the glossy, airbrushed color photos typical of the seed-catalog world. Now some of our art can grace your walls! High-quality 12x18" prints on heavy matte cardstock are suitable for framing or thumbtacking. Choose from the 2000 cover (a fantastic scene of Father Time with an organic-agriculture New Year baby ushering out the demons of conventional farming); the 2005 cover (peasants sheaving grain, with a quote from Deuteronomy about gleaning); the Trees 2008 cover (a fantastic tangle of fruits and lush vegetation) or the Trees 2018 cover (an adorable if pesky vole perched in a bramble).

9468 *Fedco Cover Art Poster (0#) for $4.00*
A*: Seeds 2000* ***B****: Seeds 2005*
C*: Trees 2008* ***D****: Trees 2018*

Apples and the Art of Detection: Tracking Down, Identifying and Preserving Rare Apples by John Bunker, 407 pages, $8^{1}/_{2}$x11, softcover. I've been listening to John Bunker talk about apples for as long as I can remember. The old varieties and why we should rescue them, the Johnny Appleseeds of America, and the shocking truth that you can't plant an apple seed and expect to get the same apple. This book, brilliantly framed as a Sherlock Holmes detective story, belongs not only on the shelf of anyone interested in apples; it is also for those who want to learn about the old-timey salt-of-the earth apple experts: John's mentors. As a layperson, I especially enjoyed those sections, but I was also impressed with the precision with which the science is presented. Photographs and artwork galore, it is beautifully illustrated by the author himself. -Emily Bunker



9470A*: Apples and the Art of Detection (0#) for $40.00*

The Apple Grower: A Guide for the Organic Orchardist 2nd edition, by Michael Phillips, 320 pages, 8x10, softcover. The book you need to grow apples organically. Research aimed at reducing the use of synthetic poisons in the orchard has produced heartening results in recent years. Since *The Apple Grower* first appeared, two important products for organic orchardists, Surround (**8720**) and Entrust (**8759** on our website), make it possible to grow very decent apples organically. This second version includes apple-growing basics from A to Z, as well as the latest research and strategies for successful organic orcharding. Michael read the studies, did the interviews, tested the products and found an effective way to organize the information and communicate it to the rest of us. -JB

9471A*: The Apple Grower (0#) for $40.00*

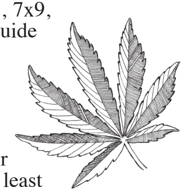
The Apple Lover's Cookbook: The Classic Guide to Cooking and Eating Apples by Amy Traverso, 336 pages, $8^{1}/_{4}$x$10^{1}/_{2}$, hardcover. Come fall, when the weather turns crisp and my cravings shift from vibrant refreshing summer vegetables to comforting spiced autumnal flavors, this book is my first stop. Traverso's passion for apples is evident in this thorough, well-researched and well-tested book. It features a section on Fedco's own John Bunker and his life's work preserving heirloom apples, along with loads of other educational tidbits and tips. Ever find yourself annoyed by recipes that call for "one" apple? (Is that one Pipsqueak or one Twenty Ounce?!) Traverso has got you covered with helpful size approximations and adjustments for the apple you're working with. She includes descriptions for 59 varieties (many are offered for sale by Fedco Trees) with notes on taste, texture and suggested uses. From savory to sweet, there are recipes to suit everyone's tastes. Try Rhode Island Greening Apple Risotto, Black Oxford Apple Brownies, or Wolf River Cider-Baked Apples. You'll want to add this classic to your collection. -ES

9473A: *The Apple Lover's Cookbook (0#) for $30.00*

The Apples of New England by Russell Steven Powell, 214 pages, $7^{1}/_{4}$x$7^{1}/_{4}$, hardcover. Apples were planted in New England as far back as 1604 when the French explorer Pierre du Gua, the sieur de Monts, started an orchard on St Croix Island just south of Castine. From the beginning of European settlement, apples and cider played a great role in making life here palatable. People who lit out carried apple seeds with them, concerned less about the varieties they were carrying than the potential of those seeds to supply food and drink. The cultivation was so intense that Don Bussey's recent seven-volume encyclopedia, *The Illustrated History of Apples in North America*, catalogs 17,000 varieties. Much shorter than Bussey's opus, with descriptions of 162 varieties of historic or commercial importance, this book is a pleasure. It's a well-written brief but dense history of apples and the folks who spread them throughout New England. A handy guide for exploring and rediscovering our apple heritage. -DS

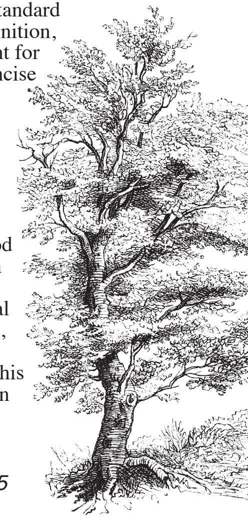
9474A*: The Apples of New England (0#) for $20.25*

The Beginner's Guide to Growing Cannabis and Making Your Own Healing Remedies by Tammi Sweet, 144 pages, 7x9, softcover. Practical, clear and wasting not a word, this guide is a perfect tool for anyone new to world of cannabis. Herbalist Tammi Sweet stresses quality over quantity and teaches beginners how to nurture big healthy plants from seed-starting through harvest. She writes, "my goal is to help people gain greater knowledge of and respect for the cannabis plant and its healing properties, and to empower people to have the confidence to work with the plant." At least with this reader, she accomplished her goal. She demystifies topics like cultivar selection, seed sourcing, sexing plants, knowing when to harvest, and decarboxylation for making tinctures and infused oils. For more advanced growers, she offers guidance on seed-saving and creating your own cultivars, as well as holistic approaches to pest and disease controls. Sweet is also the author of **9816** *The Wholistic Healing Guide to Cannabis*, which does a deeper dive into using cannabis as medicine. For those of us just getting started, the beginner's guide has all we'll need. -EB **NEW!**



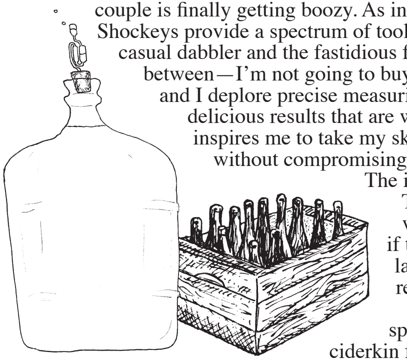
9490A*: The Beginner's Guide to Growing Cannabis (0#) for $19.99*

A Beginner's Guide to Recognizing Trees of the Northeast by Mark Mikolas, 208 pages, 6x9, softcover. If you've ever felt stumped by tree ID, Mikolas wants you to know it's not your fault and he's here to make it easier. His book challenges the standard pedagogy on the subject, arguing that recognition, not identification, is the proper starting point for aspiring dendrophiles. His alternative is concise but effective, forgoing a full taxonomy of each species in favor of highlighting a few unique traits that single out each one. The cues are accentuated with color photos of each detail, taken from multiple trees, at multiple times of year, in different conditions, supplemented by standard info like geographic range and trivia. The method presumes you're walking in the woods with the book in hand, about to look closely at a tree for the first time in your life, with a goal of better connecting with your environment, not earning an advanced degree. If you're tired of feeling stranded in the wilderness, this guide offers a gateway to further exploration that will help you see the trees in the forest and the forest for the trees. -KH **NEW!**



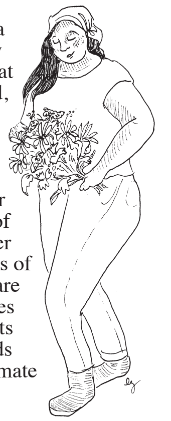
9500A*: A Beginner's Guide to Recognizing Trees (0#) for $19.95*

Order books on the Organic Growers Supply form.



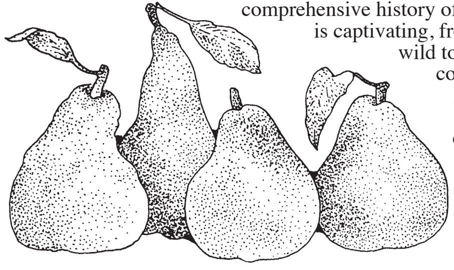
The Big Book of Cidermaking: Expert Techniques for Fermenting and Flavoring Your Favorite Hard Cider by Christopher Shockey and Kirsten K. Shockey, 336 pages, 8x9, softcover. This fermentation power couple is finally getting boozy. As in their other popular books, the Shockeys provide a spectrum of tools and methods to suit both the casual dabbler and the fastidious fermentista. I'm somewhere in between—I'm not going to buy a lot of expensive equipment and I deplore precise measuring, but I also want interesting delicious results that are worthing of sharing. This book inspires me to take my skrumpy homebrews up a notch without compromising my enjoyment of the process. The instructions are easy to follow. The Shockeys like to get crazy with their flavors, but it's okay if that's not your thing: they first lay a solid groundwork of basic recipes and techniques. Wild or cultivated, infused or straight, sparkling or still, extra-boozy or ciderkin for the kiddos—there's a cider for any occasion. -EB

***9506A**: The Big Book of Cidermaking (0#) for $29.99*



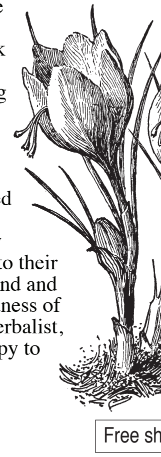
Black Earth Wisdom: Soulful Conversations with Black Environmentalists by Leah Penniman, 352 pages, 6$^{1}/_{3}$x9$^{1}/_{2}$, hardcover. "The Queen Mothers of Kroboland, Ghana, admonished their Black American students in disbelief, 'Is it true that in the United States, a farmer will put the seed into the ground and not pour any libations, offer any prayers, sing, or dance, and expect that seed to grow?' Met with ashamed silence, they continued, 'That is why you are all sick! Because you see the earth as a thing and not a being.'"A poignant and galvanizing collection of essays and conversations with respected Black leaders, brilliantly woven together by Leah Penniman, author of *Farming While Black* and cofounder of Soul Fire Farm. This collection honors the deep well of environmental wisdom held by Black people, despite over 400 years of racism and oppression. With cultivated skills of listening and connecting with the Earth, these leaders share the lessons and teachings they have learned. In these times of climate chaos and political instability, Penniman asserts that the fight for racial and environmental justice demands that we put our planet first and defer to nature as our ultimate teacher. -EP **NEW!**

***9507A**: Black Earth Wisdom (0#) for $26.99*



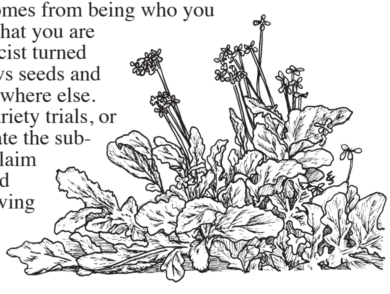
The Book of Pears: The Definitive History and Guide to Over 500 Varieties by Joan Morgan, 304 pages, 8x10, hardcover. In Fedco Trees' work to track down, identify, and propagate the oldest surviving pear trees, we frequently reference the descriptions, colorful watercolors, and identification key found in fruit historian Joan Morgan's illuminating book. Her comprehensive history of one of our favorite fruits is captivating, from seedlings found in the wild to modern-day cultivars. In collaboration with the UK's National Fruit Collection, she compiled hundreds of descriptions in the second half of the book. She includes not only the sweet melting pears most of us recognize as dessert fruit, but also astringent varieties better suited for storage or baking; perry pears used for brewing an alcoholic beverage similar to hard cider; and Asian pears, too. Essential for those who love pears and want to learn more about them. -LC

***9508A:** The Book of Pears (0#) for $37.50*



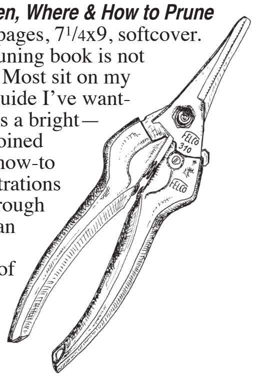
Botany in a Day: The Patterns Method of Plant Identification 6th edition, by Thomas J Elpel, 235 pages, 8$^{1}/_{2}$x11, softcover. I love this book, from a small press out of Pony, MT. Besides the dictionary and Ovid's *Metamorphoses*, it is the book I most often flip through while drinking coffee in the morning—I find it beautiful, comforting and stimulating all at once. Colorful illustrations on nearly every page, it's an approachable botany textbook and an herbal field guide to North American plants, regularly updated by the author since its release in 1996. Although Elpel asserts that "in a day" you can learn everything you need to know to ID unfamiliar plants, I've been poring over this book for years, opening at random to a plant family and studying patterns of characteristics that link plants to their relatives. The patterns method engages the scientific mind and also sparks a mystic appreciation for the interconnectedness of things in our world. For the studious, the curious, the herbalist, the teacher—plant-lovers of all persuasions will be happy to have this on the shelf. -EB

***9510A:** Botany in a Day (0#) for $36.00*



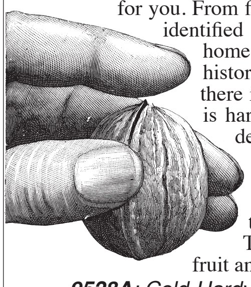
Breed Your Own Vegetable Varieties: The Gardener's and Farmer's Guide to Plant Breeding and Seed Saving 2nd edition by Carol Deppe, 384 pages, 8$^{1}/_{2}$x11, softcover. "Why Save Seeds? Saving seeds is fun. Cleaning the seed, holding the clean seed in your hands, is magical. Gaze at the seed, run your fingers through it, play with it, and you can feel the connections… Unquenchable joy arises. It is so intense it puzzles you initially. Then you recognize it. It is the joy that comes from being who you are supposed to be and doing what you are meant to do." Molecular geneticist turned seed breeder Carol Deppe knows seeds and shares information available nowhere else. Want to know how to design variety trials, or how to understand and appreciate the subtleties of selection? Want to reclaim the lost lore of our ancestors and relearn the traditions of seed saving and seed breeding? Let Deppe be your guide as you chart your own path with seeds one experiment at a time. -CR

***9515A:** Breed Your Own Vegetable Varieties (0#) for $29.95*



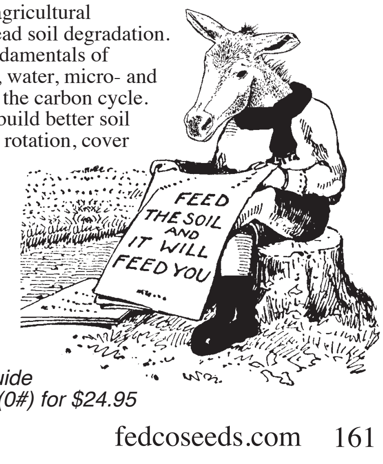
Cass Turnbull's Guide to Pruning: What, When, Where & How to Prune for a More Beautiful Garden by Cass Turnbull, 365 pages, 7$^{1}/_{4}$x9, softcover. I'm the kind of tree gardener who feels that one pruning book is not enough. Each one has something different to offer. Most sit on my shelf for quick reference. This is the first pruning guide I've wanted to read from cover to cover! Cass Turnbull sheds a bright—even glaring—light on pruning and what she has coined "mal-pruning." Fleshing out the details with clear how-to and how-not-to instructions along with useful illustrations and laugh-out-loud humor, she walks the reader through the basics and delves into the specifics for more than 150 plant species. Turnbull urges us to look more closely at how plants grow in order to make sense of why and how we should prune them. Chapters are grouped by plant habit (mounding, cane-growing, tree-like, vines and groundcover) so even if your favorite plants are not listed here, you can adapt the methods to meet your specific needs. -JR

***9522A**: Cass Turnbull's Guide to Pruning (0#) for $24.95*



Cold-Hardy Fruits and Nuts: 50 Easy-to-Grow Plants for the Organic Home Garden or Landscape by Allyson Levy and Scott Serrano, 384 pages, 7x10, softcover. Levy and Serrano began filling their upstate New York land with chosen plants in 1999, and quickly veered onto the path of creating an "edible experimental station," now a recognized arboretum and botanical garden. If you are curious to move beyond the more common garden fruits and want to grow what you could never find in the store, this is the book for you. From first-hand experience and extensive research they've identified easy-to-grow cold-hardy edible fruits and nuts for home gardens. The 50 plant profiles read both as natural histories and reference guides. With the right protection, there is a citrus you can grow in Zone 6. Schisandra vine is hardy to Zone 3, can fruit in part shade and produce delicious medicinal berries. Medlar, in medieval times called *openarse* due to the fruit's resemblance to a horse's rear end, has the flavor and texture of applesauce. Fedco Trees offers many of the plants in this book, making it good companion reading to our Trees catalog. A must-have resource to broaden your fruit and nut horizons. - RS

***9528A**: Cold-Hardy Fruits and Nuts (0#) for $34.95*



The Complete Guide to Restoring Your Soil by Dale Strickler, 352 pages, 8x10, softcover. It's hard to find books that cover soil science and stewardship in a way that engages laypeople. We offer this one because it is both engrossing and practical for anyone who works with soil. Written by a farmer and soil-lover, this book is an ode to the revolutionary power of tending healthy and productive soils. Strickler begins by explaining how bad agricultural practices have created widespread soil degradation. From there, he explores the fundamentals of healthy soil in terms of oxygen, water, micro- and macroorganisms, minerals, and the carbon cycle. He describes the practices that build better soil (including reduced tillage, crop rotation, cover crops, and agroforestry). All along the way, Strickler keeps things interesting with farmer anecdotes, insightful reference charts, and illustrations. His passion for soil health shines through, as does his optimism that wiser agricultural practices could reroute us onto a more sustainable path. -JPR

***9529A**: The Complete Guide to Restoring Your Soil (0#) for $24.95*

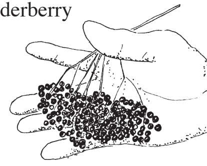
Crop Planning for Organic Vegetable Growers by Frédéric Theriault and Daniel Brisebois, 136 pages, $7^1/_2$x9, softcover. If I'd had this book when I started farming, I would have avoided many mistakes. Published by Canadian Organic Growers, it's full of tools to plan for success before your first seed hits the soil. Charts, calculations and records—all the dry bones of keeping information handy, farming profitable and certification inspections smooth. Succinct chapters move from setting financial goals to developing a marketing plan, projecting planting schedules, compiling a seed order, analyzing before planning another year. For farmers, next year always holds the promise of being better; this book could make it so. -NK

9537A: *Crop Planning For OG Vegetable Growers (0#) for $30.50*

The Ecological Farm: A Minimalist No-Till, No-Spray, Selective-Weeding, Grow-Your-Own-Fertilizer System for Organic Agriculture by Helen Atthowe, 384 pages, 8x10, softcover. If you've been following the various threads in "ecological" or "holistic" growing that have emerged in recent years and either want to join the party, learn what the fuss is about, or synthesize your current understanding of experimental concepts into a single deft, state-of-the-art summary that can propel you forward, this book is the one-stop shop for you. Organic farmer, orchardist and consultant Helen Atthowe has spent decades trialing and researching low-intervention approaches to agriculture. Giving equal love to the veggie garden and the orchard, her approach attempts to merge components of the cultivated landscape often treated separately, while reframing attitudes toward the most common vexing tasks. "Weeding" becomes "Working With Plant Competition," and "Pest Control" becomes "Strengthening the Immune System of Your Farm or Garden." At the same time, her book is full of good ol' fashioned horse sense on soil health, pests and diseases, including super-handy diagnostic tools for identifying challenges for specific crops, and suggestions for intervening with your entire system in mind. Expect avant-garde concepts tested and grounded in experience, digested into a guide that can get a beginner started or update an experienced grower's perspective on familiar topics. -KH **NEW!**

9542A: *The Ecological Farm (0#) for $44.95*

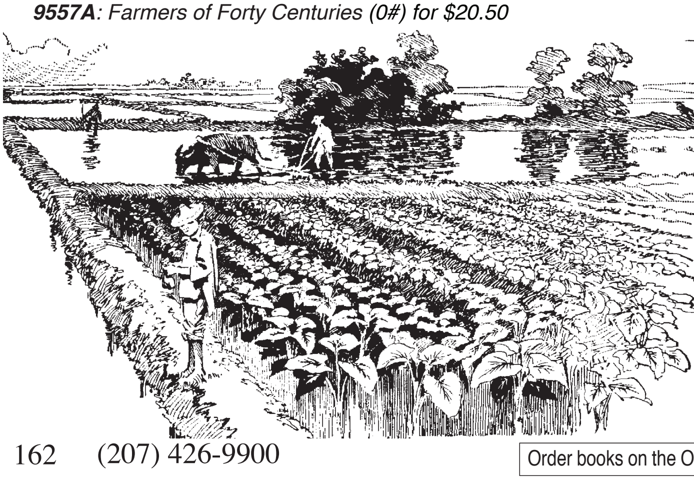
The Elderberry Book: Forage, Cultivate, Prepare, Preserve by John Moody, 114 pages, $7^1/_2$x9, softcover. The elderberry and humans have been together for a long time. Moody writes, "If the dog is humanity's best friend, then the elderberry may be its best plant friend." For generations, elder was the go-to household treatment for just about everything: dropsy, toothaches, or to remedy the effects of strangulation (apparently). For survival, people had to know their plants, and the elder was key. Everyone should have a few in their landscape, especially during a plague. Appreciation for elderberry is making a comeback, and we're all for it. (We're offering 12 elderberry varieties in the 2024 Fedco Trees catalog!) They offer beauty, forage and sanctuary. Moody's book works because it's simple and highlights reasons to plant an elderberry bush and how to do it. He walks us through a history of the plant, its cultivation and propagation, and its many uses in food, tools and toys. -JR



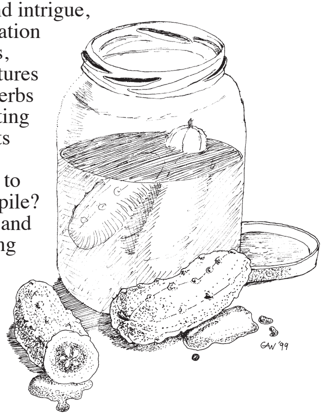
9549A: *The Elderberry Book (0#) for $24.99*

Farmers of Forty Centuries: Organic Farming in China, Korea, and Japan by FH King, 441 pages, $5^1/_2$x$8^1/_2$, softcover. In the early 1900s, former USDA official FH King traveled through China, Korea, and Japan to document how people sustained an agriculture for 4000 years without synthetic fertilizer. This book is as much an anthropological artifact as a point-by-point account of local agricultural methods and agricultural economy. The focus on rural smallholders and their ability to produce large diverse yields of marketable and household products using locally available inputs while generating little to no waste offers an inspiring case study that should resonate with contemporary homesteaders and small farmers, even if most of us don't aspire to build four different versions of water wheel or replicate the 1906 Japanese rice crop. Chapters are organized as a travelog, following King from place to place, but also by specific themes that make skipping around easy if the detail on a particular topic is overwhelming. If the reader is able to look past some dated language and bias, this book has a ton of perspective and practical skills to offer, along with irrefutable evidence of an agriculture dependent on small-scale earth care, free of fossil fuels. An oft-cited classic previously hard to find in print in its entirety. -KH **NEW!**

9557A: *Farmers of Forty Centuries (0#) for $20.50*

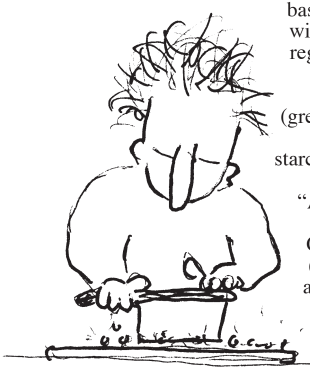


Fermented Vegetables: Creative Recipes For Fermenting 64 Vegetables & Herbs in Krauts, Kimchis, Brined Pickles, Chutneys, Relishes & Pastes by Kirsten K. Shockey and Christopher Shockey, 376 pages, 8x9, softcover. With more than 140 recipes that excite and intrigue, this book is causing a stir among fermentation enthusiasts. Fermented salsas, herb pastes, chutneys, krauts and more—the book features recipes based on garden vegetables and herbs organized from A to Z. Tired of pesto getting funky so fast? Make a basil paste that lasts in the fridge for a year. Tired of squash? Ferment it with chipotle. Wondering how to preserve all those nettles by the compost pile? Try nettle kraut. The book covers history and science, vessels and equipment, fermenting fundamentals and advanced techniques, troubleshooting, and recipes for foraged foods. It closes with recipes to turn your fermented creations into snacks, entrées, desserts and "crocktails." Profiles of fermentistas interspersed throughout include tips that add depth of knowledge, technique and history. -RB



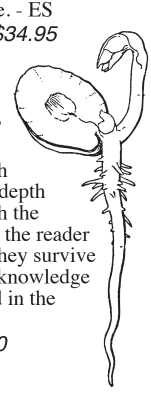
9567A: *Fermented Vegetables (0#) for $25.50*

The Forager Chef's Book of Flora: Recipes and Techniques for Edible Plants from Garden, Field, and Forest by Alan Bergo, 288 pages, 7x10, hardcover. This is a cookbook for avid foragers and gardeners looking to infuse their kitchens with creativity. (Others will be hard-pressed to find key ingredients available for sale.) *Flora* offers clear instructions, gorgeous photos, and inspiration well beyond the ordinary soup-or-salad suggestions of the average foraging book. However, this is *not* a wild edibles guide; Bergo is foremost a chef (notably a 2022 James Beard Award winner). While he's based in Minnesota, the featured plants are found widely throughout the U.S., particularly northern regions. He uses simple, high-quality ingredients to craft innovative and accessible recipes. The book is organized into four sections: Verdant (greens), Abundant (vegetables), Aromatic (herbs, flowers, alliums), Nourishing (nuts, grains, starches). Among the more notable recipes: Seared Hosta Shoots, Fennel Frond Cakes, Sunflower "Artichokes" (using immature flower heads, not sunchokes), Cornmeal-Fried Milkweed Pods, Glazed Hop Shoots, Sweetfern Cookies, Green (yes, unripe!) Pumpkin Pie, Bird Cherry Flour, and Black Walnut Preserves. Bergo knows how to make the flora shine. This book is the first in a series; *Fungi* and *Fauna* are forthcoming. Pairs beautifully with Sam Thayer's guidebooks. I expect this book will keep me busy for many seasons to come. - ES

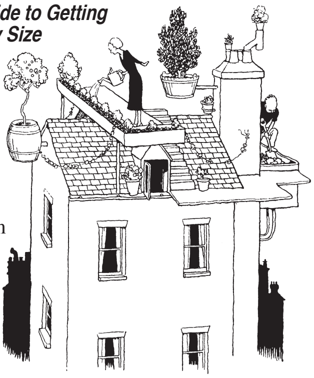


9578A: *The Forager Chef's Book of Flora (0#) for $34.95*

A Gardener's Guide to Botany: The Biology Behind the Plants You Love, How They Grow, and What They Need by Scott Zona, 256 pages, 8x10, hardcover. Ever wondered what's happening when your plant suffers transplant shock? Or what causes variegation in a favorite garden cultivar? Or wanted to more fully comprehend the importance of each nutrient to a plant's health and growth? Without sacrificing depth of content, this book clearly explains complex concepts with the curious plant grower in mind. Beautifully illustrated to help the reader understand the parts of a plant, what plants need, and how they survive and reproduce. This guide will equip anyone with a deeper knowledge and appreciation for the world of plants in their gardens and in the wild. -RS **NEW!**

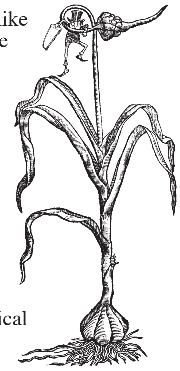


9580A: *Gardener's Guide to Botany (0#) for $32.00*



Grow More Food:* *A Vegetable Gardener's Guide to Getting the Biggest Harvest Possible from a Space of Any Size by Colin McCrate and Brad Halm, 303 pages, 8½x 10¾, softcover. This book's subtitle initially raised my hackles as being part of the American predilection for Bigger and More that creates so much destruction. Once I opened the cover, I was converted. The authors began their careers working on diversified farms, then launched a business that teaches others grow their own food. They have honed the information to what is most useful and streamlined it with good organization, clear descriptions and helpful charts. Practical information for every skill level is jam packed into the timeframe between planning a garden and storing away the results, but do not be fooled into thinking the book is dry. They include conversational pros and cons of the strategies that make the compactness of information very readable and targeted towards a wide variety of situations. Good pictures and line drawings illuminate the content. Their overarching perspective is that success comes from thinking like a farmer, becoming inspired like an artist, and keeping a sense of humor. Now that's good advice. -NK

***9595A**: Grow More Food (0#) for $24.95*

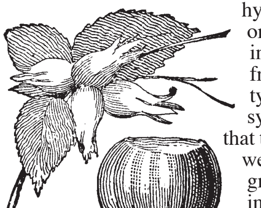


Growing Garden Seeds:* *A Manual for Gardeners and Small Farmers by Robert Johnston, Jr., 32 pages, 5½x8½, softcover. If you are new to seed saving, this little manual by the founder of Johnny's covers all the basics and is the best place to start. First published in 1976, it is a classic.

***9600A:** Growing Garden Seeds (0#) for $8.00*

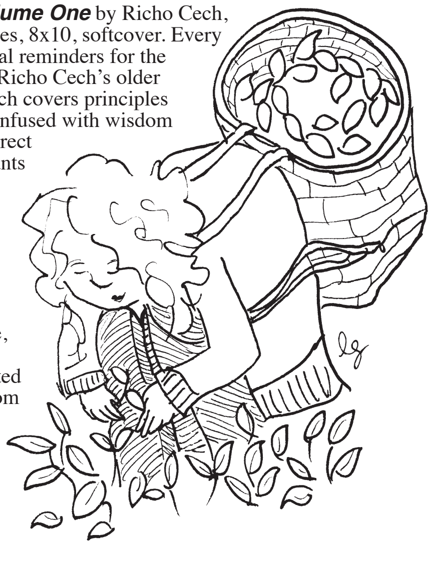
Growing Great Garlic by Ron L. Engeland, 213 pages, 6x9, softcover.Varietal descriptions, history, and in-depth cultural information on growing, harvesting, storing and marketing garlic. The chapter on pests and diseases has practical suggestions for minimizing and containing the damage.

***9608A**: Growing Great Garlic (0#) for $22.95*



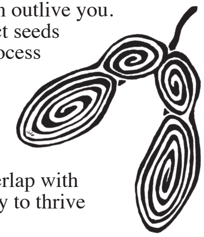
Growing Hybrid Hazelnuts:* *The New Resilient Crop for a Changing Climate by Philip Rutter, Susan Wiegrefe, and Brandon Rutter-Daywater, 260 pages, 7x10, softcover. This is the first comprehensive guide for farmers interested in growing hybrid hazelnuts, a crop designed from the very outset to address a host of problems with conventional modern agriculture. Once hybrid hazelnuts are established, no plowing, or even cultivation, is necessary. Dramatically improved infiltration rates prevent water from running off of fields, regardless of soil type. The crop's extensive, permanent root systems—at work 365 days a year—mean that tilling should not be necessary in moderately wet soils, and that no fertilizer can escape into groundwater. No soil is lost to wind or rain; in fact, this crop builds soil, and wildlife finds cover and food in hazelnuts all year. Economically speaking, hazelnuts have a large, existing and unsatisfied world market, not to mention their processing potential is even greater than soybeans. They are, without a doubt, an ecological crop for the future.

***9610A**: Growing Hybrid Hazelnuts (0#) for $39.95*



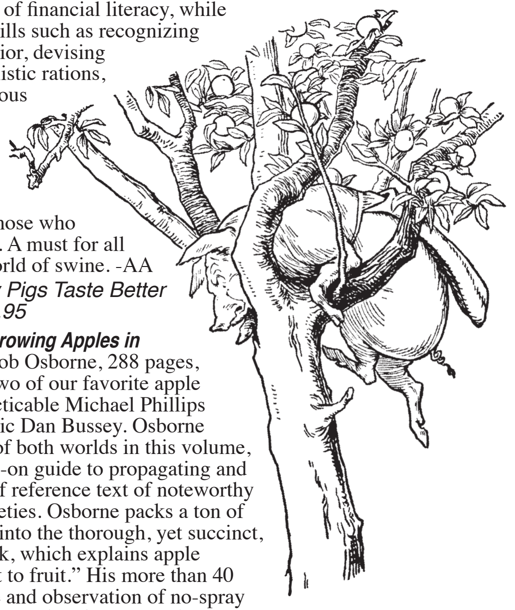
Growing Plant Medicine, Volume One by Richo Cech, illustrated by Sena Cech, 354 pages, 8x10, softcover. Every spring, for inspiration and practical reminders for the new growing season, I've reread Richo Cech's older *The Medicinal Herb Grower,* which covers principles of natural gardening techniques, infused with wisdom and stories from his decades of direct experience growing wild-type plants for medicine and for seed. This new volume is the long-awaited expanded version, combining the earlier book with a new section covering specifics on more than 150 individual herbs, including growth considerations, seed germination, harvest and use, native distribution and more. The herbs covered in this book are listed alphabetically by plant family, from Acanthus to Hemp, leaving room for a forthcoming Volume Two. There is also a new section on garden planning and design, with sample designs included. For anyone growing medicinals and wild-type plants, this is a must-have. -RS **NEW!**

***9611A**: Growing Plant Medicine, Vol. One (0#) for $30.50*



Growing Trees from Seed:* *A Practical Guide to Growing Native Trees, Vines and Shrubs by Henry Kock, et al., 288 pages, 8½x11, hardcover. While there are countless volumes on growing annual vegetables and flowers, guides to growing woody plants from seed are few and far between. Whether you start with a tiny speck of a birch seed or a plump acorn beginning to sprout, "there is much satisfaction to be gained in gathering and propagating seeds" and watching them grow into tall trees that can outlive you.
With this book you will learn how and when to collect seeds from your favorite native trees and shrubs, how to process them, store them and sow them to grow your own legacy of trees. Leaning on a lifetime of experience, the authors provide an in-depth look at each species and include helpful sidebar "alerts" for exotic and invasive plants that can be confused with natives.
Based on plants of the Great Lakes region, which overlap with many we have here in Maine, and many that are likely to thrive here in our warming future. -JM

***9612A**: Growing Trees from Seed (0#) for $47.50*



Happy Pigs Taste Better:* *A Complete Guide to Organic and Humane-Based Pork Production by Alice Percy, 272 pages, 7½x9½, softcover. Make no mistake. The correlation in the title is not a romantic one. And it could have been chosen only by an ex-vegetarian with an excellent palate. This book is about quality of life, both for pig and farmer. Speaking from ten years experience as an organic hog farmer, Fedco's own Alice presents the ins and outs of everything from feed sources, housing/bedding options and fencing styles, to marketing, record keeping and staying sane. Comprehensive with all necessary details of humane and organic swine life on the farm, also full of useful and sometimes surprising scientific information. (Want to know the optimal micron size of ground feed to prevent gastric ulcers? It's in here!) In *Happy Pigs*, you will read about macro issues like maintaining soil quality and the importance of financial literacy, while learning specific skills such as recognizing ancestral pig behavior, devising appropriate and holistic rations, diagnosing mysterious health conditions, humane and low-stress slaughter at home, and more. Comes with charts and templates for those who do their homework. A must for all beginners in the world of swine. -AA

***9613A**: Happy Pigs Taste Better (0#) for $29.95*

Hardy Apples:* *Growing Apples in Cold Climates by Bob Osborne, 288 pages, 8x10, hardcover. Two of our favorite apple authors are the practicable Michael Phillips and the encyclopedic Dan Bussey. Osborne combines the best of both worlds in this volume, which is half hands-on guide to propagating and cultivating, and half reference text of noteworthy northern apple varieties. Osborne packs a ton of useful information into the thorough, yet succinct, first half of the book, which explains apple growing from "root to fruit." His more than 40 years of experience and observation of no-spray orcharding reveals countless lessons on how to succeed in the coldest of climates. The overview of major pests and diseases with excellent photos makes it easy to identify what might be plaguing your crop. The second half of the book is like an abridged encyclopedia of apple cultivars, featuring some of Osborne's favorites. Each apple description is accompanied by beautiful photographs and anecdotes. We even got some new ideas of varieties to try out for Fedco Trees! -JM

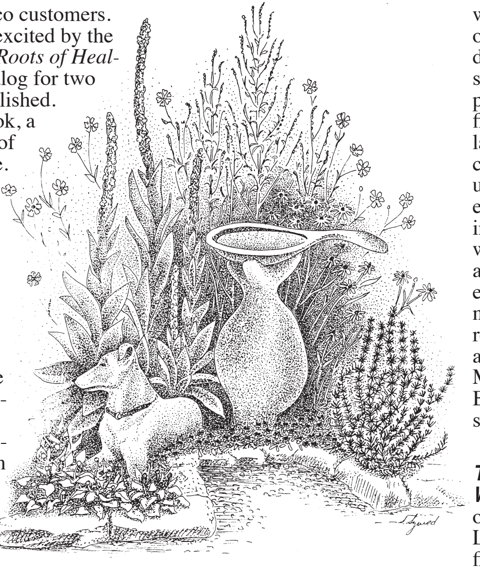
***9840A**: Hardy Apples (0#) for $35.00*

Hardy Roses:* *The Essential Guide for High Latitudes and Altitudes 3rd edition, by Bob Osborne, 208 pages, 8x10, softcover. Cold-hardy roses are a good fit for those of us who tend our plants but can't be bothered to coddle them. With only a little effort on your part, roses will reward you with magnificence. One of the most thoughtful gardeners and poetic plant writers I've encountered, Bob writes, "I like to think of plants and animals as fragile crystals growing out of the minerals on the Earth's surface into the gases of the atmosphere." Even if you don't plan to grow roses, you'll still get a thorough and truthful lesson on soil, pruning, winter hardiness and pests. Broken into two parts: part one covers planning, care, propagation and lessons in organic horticulture; part two categorizes roses by type (climbers, tall shrubs, semi-vigorous shrubs, low shrubs, groundcovers) with dozens of individual rose cultivar profiles per category. Each profile is accompanied by a scrumptious photo. This third edition reflects significant changes from the original. - JR

***9841A**: Hardy Roses (0#) for $25.75*

Free shipping on all books!

The Healing Garden: Herbs for Health and Wellness by Deb Soule, 223 pages, 7$^{2}/_{3}$x9, softcover. Maine herbalist Deb Soule has always been a favorite of Fedco customers. Thirty years ago, we were so excited by the promise of her first book *The Roots of Healing* that we listed it in our catalog for two years before it was finally published. We're pleased to offer this book, a distillation of her many years of herbal relationship and service. Documented throughout with pictures by Molly Haley, this straightforward book arrives at a timely juncture for those new to working with herbs. It begins with the considerations for gathering the plants, then quite extensively covers all aspects of drying before outlining ways to make simple household medicine: teas, tinctures, tonics, flower essences and more. At the finish, 18 medicinal plants are introduced in concise vignettes. Grounded in respect for the plants, the other beings in the garden and the land, Deb has packed a lot of understanding into a beautiful presentation. Her loving intent shines through in her closing words: "May herbal remedies find their rightful place in every household and community clinic, not as commodities but as beloved friends." -NK

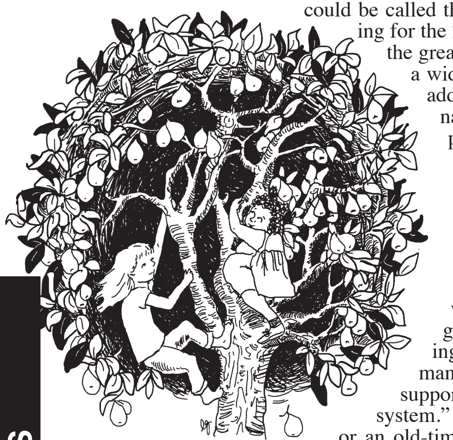


9614A: *The Healing Garden (0#) for $29.95*

Herbal Revolution: 65+ Recipes for Teas, Elixirs, Tinctures, Syrups, Foods + Body Products That Heal by Kathi Langelier, 192 pages, 7$^{3}/_{4}$x9, softcover. From award-winning Maine herbalist and farmer Kathi Langelier comes this must-read for anyone interested in incorporating medicinal herbs into daily life. She offers a foundational approach to herbal preparations and medicine making, then presents a rousing assembly of spunky and delicious recipes designed to build the immune system through digestive health, and revitalize cardiovascular, musculoskeletal, nervous and reproductive systems. Intriguing recipes make you want to eat your weeds: Dandelion & Burdock Fries, Elderberry Syrup with Reishi & Roots, Medicinal Mushroom Soup Stock, Nettle & Roasted Cauliflower Leek Soup, Herbal Cacao Bark with Roasted Seeds & Nuts, Maca & Ashwaganda Energy Bites. Chock-full of mouth-watering photos, this book has earned a spot on my kitchen counter, and may never even make it to the bookshelf! -LMC

9616A: *Herbal Revolution (0#) for $22.99*

The Holistic Orchard: Tree Fruits and Berries the Biological Way by Michael Phillips, 414 pages, 8x10, softcover. Written by the late renowned New Hampshire–based orchardist and author of *The Apple Grower*, this book could be called the Encyclopedia of Orcharding for the 21st Century. Reminiscent of the great old Rodale books, it covers a wide range of fruit crops, while addressing orchard design, dynamics and horticulture in unparalleled detail. It's all here: pruning, planting, companion planting, spraying, not spraying. (See our **8657** Holistic Orchard Spray Kit, page 144.) Phillips brought his extensive background in organic orcharding, along with wisdom: "A holistic grower knows that producing healthy fruit is not about manipulating nature, but about supporting a balanced orchard ecosystem." Whether you're new at this or an old-timer, you will want a copy at hand this winter. The only other reading you will need, of course, is the latest Fedco Trees catalog. -JB



9624A: *The Holistic Orchard (0#) for $39.95*

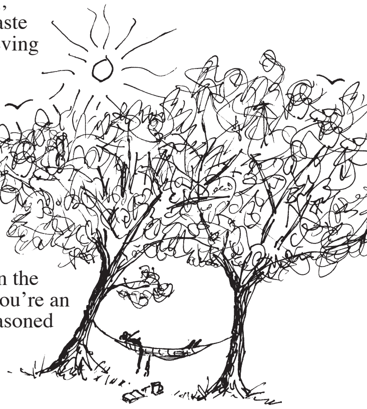
How to Move Like a Gardener: Planting and Preparing Medicines from Plants by Deb Soule, 244 pages, 6$^{3}/_{4}$x9$^{3}/_{4}$, softcover. "As you cultivate the garden, the garden is cultivating you, both inwardly and outwardly. Gardeners are shaped, pruned and informed by the garden, moment by moment, day by day, month by month and year by year." What a gift from herbalist and wise woman Deb Soule! Way beyond food, flowers or medicine, Deb's gardening is spiritual practice, mindful rhythms in harmony with all living souls. She unlocks the mysteries of biodynamics as no one ever has before. And, oh!, the incomparable photographs harmonize with her crystalline prose in a work of pure love and devotion. -CR

9636A: *How to Move Like a Gardener (0#) for $35.00*

Lawns into Meadows: Growing a Regenerative Landscape 2nd edition, by Owen Wormser, 185 pages, 7x9, softcover. Written by a landscape designer with deep Maine roots and Northeast know-how, *Lawns into Meadows* offers easily accessible information for those who wish to ditch the grass and create more natural and regenerative spaces. Whether you are driven by a desire to provide a pollinator paradise, looking for ways to manage empty fields, or have an utter disdain for gas-powered lawn tools ruining your Saturday morning coffee, Wormser presents possibilities for the urban home gardener as well as the curator of expansive meadows. The book is broken down into sections that help you through the whole process. He digs into site preparation and plant selection, through to upkeep and even community building, offering even novice gardeners the keys to creating the regenerative spaces of their dreams. A great accompaniment to our Northeast Wildflower Mix or Flowering Lawn Mix (on page 7). Beautiful color photos offer examples of every step in the process. -SF **NEW!**

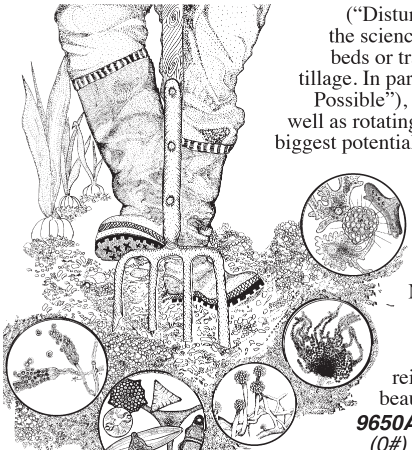
9645A: *Lawns into Meadows (0#) for $24.95*

The Lean Micro-Farm: How to Get Small, Embrace Local, Live Better, and Work Less by Ben Hartman, 272 pages, 7x10, softcover. I have spent a majority of my career working to optimize processes and eliminate waste by applying Lean principles in factories that produced everything from school bells to fire alarms, textile machines to custom yachts. Hartman's book intrigued me with its promise to apply the same Lean principles I was taught in large-scale manufacturing operations to the realm of micro-scale agriculture. Not going to lie: when I first read the title I was skeptical, but I found this book to be a refreshing and insightful read. In a world where urbanization and limited space are becoming increasingly prevalent, this book is a timely and valuable resource. It offers a road map for those interested in growing their own food sustainably, even when space is at a premium. Hartman provides readers with actionable advice on planning, resource management, and waste reduction, all crucial for achieving success in a small farming operation. His discussions on soil health, crop selection, and season extension were straightforward and informative, with real-world examples to illustrate his points. This book is invaluable resource for those seeking to create abundance from even the smallest of spaces. Whether you're an aspiring micro-farmer or a seasoned gardener, this book is sure to inspire and guide you toward a greener, more sustainable future. -AF **NEW!**



9648A: *The Lean Micro-Farm (0#) for $34.95*

The Living Soil Handbook: The No-Till Grower's Guide to Ecological Market Gardening by Jesse Frost, 304 pages, 7x10, softcover. There are now many books about no-till vegetable culture, but Frost's stands out by going deeper into the living nature of soil while broadening our practical understanding of how to grow crops in a regenerative way. With his experiences as farmer, journalist, podcast host, and cofounder of the No-Till Growers website, he synthesizes the perspectives of growers who are thriving in the revival of this ancient agricultural model. In part one ("Disturb as Little as Possible"), he lays out the science of living soil and how to start new beds or transition established beds away from tillage. In part two ("Keep It Covered as Much as Possible"), he addresses compost and mulch, as well as rotating crops and managing paths, the two biggest potential quandaries for those new to no-till. In part three ("Keep It Planted as Much as Possible"), he shares fresh insights on managing fertility and interplanting to maximize a bed's potential, and he concludes with a 50-page chapter, "Seven No-Till Crops From Start to Finish." Wherever you are in your journey as a steward of plant and soil life, Frost's passionate compilation will reinvigorate your efforts to grow more beautifully and bountifully. -JPR

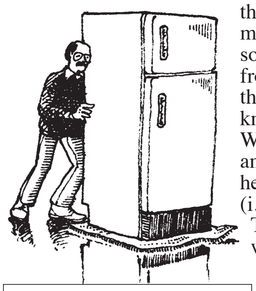


9650A: *The Living Soil Handbook (0#) for $29.95*

Miso, Tempeh, Natto & Other Tasty Ferments:* *A Step-by-Step Guide to Fermenting Grains and Beans by Kirsten K. Shockey and Christopher Shockey, 408 pages, 8x10, softcover. It turns out there's more to fermented grains than beer, and more to fermented beans than compost fodder. With the help of carefully selected mold cultures, a DIY countertop setup, and the friendly counsel of the Shockeys, grains and legumes can take on a dizzying array of forms and flavors that improve their nutrition and add excitement to your pantry. Koji—the "seed" for miso, tamari and other mold-based ferments—in particular has become a darling of many chefs and fermentation nerds for its ability to produce the coveted umami flavor in almost anything it touches, to accelerate other fermentations, or digest otherwise inedible foods into novel and delicious condiments. This book does a good job acknowledging and summarizing the millennia of tradition behind these methods, while feeding the urge for iterative creativity and adaptation common to Western cooks. The authors' joy is evident, and they write more like experienced co-conspirators than lab techs or chefs with something to prove. From properly preparing your legumes and grains, to managing the ferments, to recipes for using your finished products, this is a comprehensive accessible resource for anyone looking to expand their fermentation skills, improve the digestibility of beans and grains, or try something new in the kitchen. -KH **NEW!**

***9665A**: Miso, Tempeh, Natto (0#) for $29.95*

Moving Heavy Things by Jan Adkins, 48 pages, 10$^{1}/_{4}$x6$^{3}/_{4}$, softcover. Years ago, I received a copy of this little book as a gift from my dear friend Carol Bryan, who inscribed it: "May your back be forever young." I often turn to it for instruction and for amusement. Written the year I was born, the book becomes increasingly relevant as I find myself looking for smarter ways to lug the rocks, soil, wood and water that life demands be moved from here to there. Adkins writes, "As you begin this business of moving heavy things you should know that you have a disadvantage: your body." With humorous line drawings and simple precepts and instructions, Adkins finds ways to move any heavy thing by employing ingenuity, simple tools (i.e. wedges, jacks, levers, line) and often a friend. The lessons are practical, grounded in historical wisdom and physics, and the sentiments and illustrations will please readers of all ages. -EB



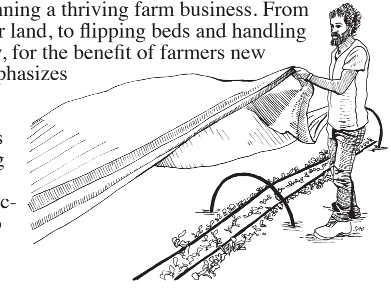
from *Moving Heavy Things*
by Jan Adkins

***9669A**: Moving Heavy Things (0#) for $21.50*

The New Organic Grower 30th Anniversary Edition, by Eliot Coleman, 304 pages, 8x10, softcover. As a teenager, I was always listening to Pearl Jam's *Ten*, and as a new farmer I was always reading *The New Organic Grower*. My cassette eventually broke, and my book is now so stained with coffee and potting mix that it's practically unreadable. It's a great time to be alive, though, because *Ten* is easily streamable, and Coleman's classic book has been reissued in a fully revised and updated 30th anniversary edition. A trailblazer and wise elder of the organic farming movement, Coleman famously turned some once depleted fields on the coast of Maine into vibrant productive farmland. Distilling his decades of experience and boundless enthusiasm for farming and innovating, this book covers the whole life cycle of a farm; from searching for land; to seed selection; crop planning; seedling production; weed, pest, fertility and labor management; even harvesting and marketing. And this is no mere reprint: he never stops experimenting, and his advice has been updated with details on new tools (including blueprints!) and techniques. Among the new additions are a chapter on ley farming and a section on growing flowers, as well as detailed color photos throughout the book. Coleman's clear prose is a joy to read, whether you're in the garden or on the porch. -CC

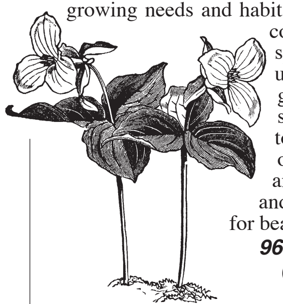
***9687A**: The New Organic Grower (0#) for $29.95*

The No-Till Organic Vegetable Farm:* *How to Start and Run a Profitable Market Garden That Builds Health in Soil, Crops and Communities by Daniel Mays, 240 pages, 8x10, softcover. As more gardeners and farmers warm up to the idea of reducing or eliminating tillage, a few farms in New England have risen to prominence as models of what can be achieved with applying no-till to a market-garden scale. Daniel Mays' Frith Farm has inspired vegetable farmers in Maine and beyond. In his thoughtful book, Mays goes well beyond the why and how of growing without tilling, and offers up all he's learned about starting and running a thriving farm business. From acquiring capital and searching for land, to flipping beds and handling harvests, Mays covers it all wisely, for the benefit of farmers new and old. His holistic approach emphasizes not only efficiency and financial solvency, but also quality of life and working at a human scale. His labor-planning and record-keeping strategies are worth emulating as much as his soil-stewarding practices. This book will breathe life into your growing endeavors and help make your market garden a more joyful place for all involved. -JPR



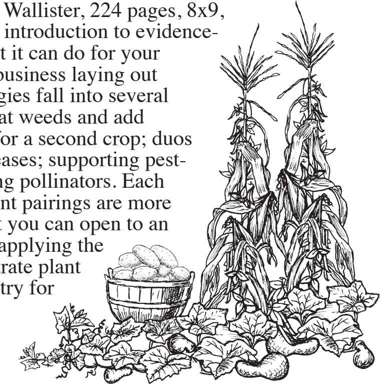
***9689A**: The No-Till Organic Vegetable Farm (0#) for $24.95*

The Northeast Native Plant Primer:* *235 Plants for an Earth-Friendly Garden by Uli Lorimer, 252 pages, 8x9, softcover. Who better to teach us about gardening with natives than the director of horticulture at Native Plant Trust, the nation's oldest plant conservation organization? In this inspiring and practical guide, Lorimer profiles 235 native plants, describing their growing needs and habits, wildlife value and native habitat, with gorgeous color photos to emphasize the unique beauty of each species. Beyond a practical resource, Lorimer invites us to rethink our use of exotics and cultivars in our gardens and lawns. Whether you're growing in a small yard or an acreage, this book will inspire you to consider the critters and the native plants they feed on. Lorimer guides us through understanding our site and goals, gives us a palette of plants to work with, and opens the door wide for us to create our gardens for beauty, wildlife and resiliency. -RS



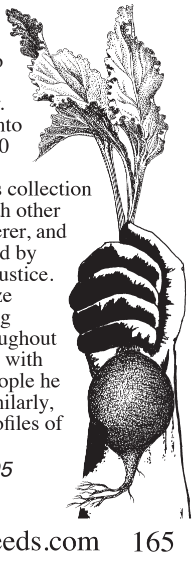
***9699A**: The Northeast Native Plant Primer (0#) for $24.99*

Plant Partners:* *Science-Based Companion Planting Strategies for the Vegetable Garden by Jessica Wallister, 224 pages, 8x9, softcover. The book begins with an introduction to evidence-based companion planting and what it can do for your garden, then quickly gets down to business laying out one idea after another. These strategies fall into several categories: living mulches to combat weeds and add fertility; plants that act as trellises for a second crop; duos to minimize pests; suppressing diseases; supporting pest-eating beneficial insects; and feeding pollinators. Each idea is tied to research, so these plant pairings are more than just sweet nothings. I love that you can open to an entry, read a page, and get on with applying the method! Full-color photos demonstrate plant pairings alongside each succinct entry for additional inspiration. -RM



***9721A**: Plant Partners (0#) for $24.99*

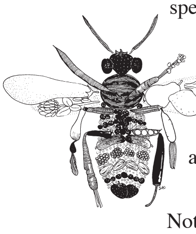
Portraits of Earth Justice:* *Americans Who Tell the Truth by Robert Shetterly, 128 pages, 8$^{1}/_{2}$x11$^{1}/_{4}$, hardcover. In 2002 Robert Shetterly started painting portraits in response to the impending war in Iraq. Channeling his anger into something positive, he chose as his subjects important figures, both living and dead, who speak truth to power. In each painting a quote from the subject is scratched into the canvas. What he originally intended as a series of 50 has now grown to more than 265 portraits, 50 of which are included in this book. There are five Mainers in this collection (including Russell Libby and Rachel Carson) along with other familiar figures like Wendell Berry, Robin Wall Kimmerer, and my personal hero Steven Donziger. All are accompanied by concise biographies and framed by essays about earth justice. By using art to illuminate the ongoing struggle to realize America's ideals, Shetterly's work has led to an ongoing mission of teaching empowerment and citizenship throughout the country. Shetterly says he can't help but fall in love with each subject he paints. By surrounding himself with people he admires, he has realized his initial goal. The reader, similarly, may feel uplifted by spending some time with these profiles of courage. -NK



***9722A**: Portraits of Earth Justice (0#) for $34.95*

Putting Food By 5th edition, by Janet Greene, Ruth Hertzberg and Beatrice Vaughn, 464 pages, 5^{1}/3x8, softcover. The pandemic inspired scores of new gardeners, and canning jars are still flying off the shelves. What's more deadly than Covid?—botulism! We figured we should offer you the food-preservation bible. First published in 1973, this comprehensive guide to canning, freezing and drying the garden's bounty has been updated and offers useful recipes and trustworthy food-safety protocols. -EB

__9725A:__ Putting Food By (0#) for $19.50



Raising Resilient Bees: ***Heritage Techniques to Mitigate Mites, Preserve Locally Adapted Genetics, and Grow Your Apiary*** by Eric and Joy McEwen, 272 pages, 7x10, softcover. There's no denying that raising bees is hard these days. Our pollinators are suffering from loss of habitat and forage, the spread of lethal parasites, the effects of toxic industrial farming practices, and climate change. It's bleak. We need dedicated folks like the McEwens, who have spent 25 years committed to developing hive-management practices based on observation, experimentation and intuition. Honest about their successes and failures, they present their best techniques to date, with the understanding that "bee stewardship is a lifetime journey." Their philosophy is to "assist colonies under pressure with minimalistic interventions at appropriate times before catastrophe." With their belief that to achieve long-term health the hives must evolve and adapt to challenges, they leave a lot up to the bees. Not a hands-off approach, but as a natural and respectful one, with its foundation in a system they call Natural Nesting. This book will be invaluable for the serious beekeeper, regardless of apiary size. Not one for dabblers. -EB **NEW!**

__9727A__: Raising Resilient Bees (0#) for $34.95

Recovering Our Ancestors' Gardens: ***Indigenous Recipes and Guide to Diet and Fitness*** Revised edition, by Devon A. Mihesuah, 350 pages, 5^{1}/2x8^{1}/2, softcover. In this revised edition, award-winning author and citizen of Choctaw nation Devon A. Mihesuah expands upon her 2003 editorial "Decolonizing Our Diets by Recovering Our Ancestors' Gardens." Themes center around the topic of Indigenous Food Sovereignty: Mihesuah discusses Native diets prior to European contact, health issues that have come along with colonization and colonized diets, challenges in recovering traditional Native diets, and steps for recovering traditional pre-contact foods. A large collection of recipes (complete with gorgeous photographs) is included. Mihesuah states that teaching about Indigenous foods often "misses opportunities for more thorough discussions about social, political, religious, and economic aspects of tribal life and Indian-white relations," and her book does not shy away from this discourse. Primarily aimed at a Native audience, but settlers who approach the book mindfully will be better prepared to engage with Indigenous Food Sovereignty and may be inspired to learn more about their own traditional foodways. -jds

__9728A:__ Recovering Our Ancestors' Gardens (0#) for $27.95

The Regenerative Grower's Guide to Garden Amendments: ***Using Locally Sourced Materials to Make Mineral and Biological Extracts and Ferments*** by Nigel Palmer, 208 pages, 6x9, softcover. Science nerds, rejoice: this book dives deep into the chemical and biological workings of your garden soil! With an introduction to the relationship between plant, soil, and the various minerals and microorganisms in the soil, Palmer discusses how growers can use local materials to improve pest and disease resistance, yields and nutrient density. He details the concepts, strategies and tools for nourishing the soil and provides about a dozen step-by-step recipes—complete with pictures—for creating amendments yourself. There's lots of chemistry, some math too, but the recipes are simple enough for a layperson to follow. -jds

__9731A:__ The Regenerative Grower's Guide (0#) for $24.95

The Resilient Gardener: ***Food Production and Self-Reliance in Uncertain Times*** by Carol Deppe, 384 pages, 7^{1}/2x9^{1}/2, softcover. First published twelve years ago, the book's subtitle was prescient. We all now know that climate change is making our growing seasons more unpredictable, and we'd be wise to reflect on the practical wisdom gained from Carol Deppe's experience and heed at least some of her advice. Placing emphasis on those with special health and dietary needs, Deppe grounds us with her 33 Golden Rules of Gardening, then examines in depth five essential crops we will need to survive and thrive: potatoes, corn, beans, squash and eggs. Learn how to maintain your own potato seed stock, how to dry squash (*spoiler alert*: she recommends both **1457** Costata Romanesca and **1635** Sunshine), and how to cook with traditional open-pollinated flint corns. I've enjoyed a serving of her skillet bread, and in this book she shares both her recipe and her secret for caring for her skillets. If you care about either gardening or eating, there's a lot to be learned here. -CR, NK

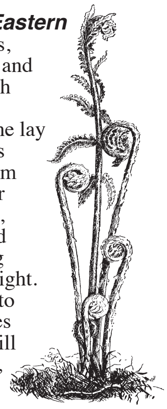
__9732A__: The Resilient Gardener (0#) for $35.00

Root Cellaring 2nd edition by Mike and Nancy Bubel, 297 pages, 6x9, softcover. A good root cellar provides a "direct, earthy and deeply satisfying connection between our summer efforts in the garden and our winter need for fresh wholesome food." Let the Bubels take you on a well-illustrated tour of root cellar designs. They can also help with varietal selection, best storage conditions and recipes. -CR

__9735A__: Root Cellaring (0#) for $17.50

Sacred Instructions: ***Indigenous Wisdom for Living Spirit-Based Change*** by Sherri Mitchell, 256 pages, 5^{1}/2x8^{1}/2, softcover. Every word counts in this broad yet concise book, and you'll want to savor it through the winter as you read it aloud, discuss with friends, then read it again. Grounded in the living wisdom of her own community, Penobscot activist, visionary and human rights lawyer Sherri Mitchell offers hope to those of us wrestling with who and how we are in this beautiful and hurting world. Mitchell never lectures or scolds, though she speaks with unflinching clarity. What she offers is a loving invitation to bring ourselves into harmony with the sacred instructions vibrating throughout the universe, and to gather our energy for the work that supports life. I recommend keeping several copies on hand because you'll keep giving them away. -SO

__9742A__: Sacred Instructions (0#) for $19.50



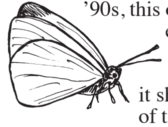
Sam Thayer's Field Guide to Edible Wild Plants of Eastern and Central North America by Samuel Thayer, 736 pages, 6^{1}/3x9^{3}/4, softcover. My wife and I do a lot of wild foraging, and Thayer's three previous compendiums have always come with us, even though it's like bringing a library every time we go wandering. Not any more. This new field guide, written for the lay forager, describes more than 600 species of wild edible plants with precise identification keys. It contains all the species from his other books, plus hundreds more, many not found in other foraging guides. Complete with color photos and range maps, optimal harvest windows, visual keys to harvestable parts and their uses, as well as clear descriptions of any similar-looking plants to avoid, this is an excellent plant ID book in its own right. The format is that of a true field guide, with condensed half- to full-page write-ups instead of the in-depth multi-page treatises you may be familiar with from his other books. This guide will now be the one we confidently take when we're on the move, leaving all other plant ID books at home to reference at a more leisurely pace. -ND **NEW!**

__9743A:__ Sam Thayer's Field Guide (0#) for $32.95

The School Garden Curriculum: ***An Integrated K–8 Guide for Discovering Science, Ecology, and Whole-Systems Thinking*** by Kaci Rae Christopher, 320 pages, 8x10, softcover. My family kept a large vegetable garden when I was a child, and some of my earliest memories were formed there. Not all children are so lucky. Many grow up with no idea how a carrot ends up on the table or how a potato grows. This disconnect comes at great culinary, social, and environmental cost to society. Christopher shows how we can return traditional agricultural knowledge to a central place in education, while also meeting contemporary institutional expectations (she ties her curriculum to the Next Generation Science Standards). Her curriculum is broken down by age group, then by season, with age-appropriate activities that teach students about botany, ecology and social interaction while keeping their bodies active and instilling the permaculture principles of "Care for Self, Care for Others, Care for the Land." Sample activities include "Gardener's Math" (a 1st-grade activity teaching measurements, estimates, and the recording of data), "Cafeteria Waste Audit" (4th-grader study of food waste and vermicomposting), and "Food Preservation" (a pickling workshop for 8th-graders). She advocates for interactive, consistent student participation rather than isolated activities that lose sight of the whole process from seed to table. Not just for professional educators: this book contains a wealth of ideas for homeschooling, or for adults who want to share the gardening experience with the children in their lives. -AC

__9746A__: The School Garden Curriculum (0#) for $39.99

The Secret Lives of Backyard Bugs: Discover Amazing Butterflies, Moths, Spiders, Dragonflies and Other Insects! by Judy Burris and Wayne Richards, 144 pages, 8x10, softcover. We picked out this book for our younger readers and were pleasantly surprised to find it quite useful for practical application in the garden. If you are a fan of the *Eyewitness* educational books from the '90s, this one is for you. The authors do a tremendous job including enough tantalizing information to get you hooked. With 45 insect and spider species covered, it's easy to forgive a lack of depth. My favorite thing about this book is that it shows photos of every life stage! I can't count the number of times I've found eggs or a caterpillar that I was previously unable to identify in the garden. The book includes an easy comparison guide with each life stage for quick ID—even if you can't find the exact species, you might find a look-alike to help you hone in. -RM

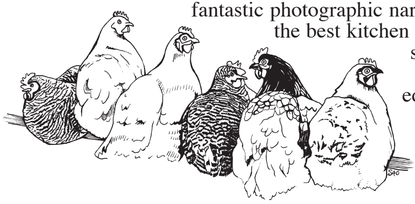


***9748A**: The Secret Lives of Backyard Bugs (0#) for $15.75*

Seed to Seed 2nd edition by Suzanne Ashworth, 240 pages, 8$^{1}/_{2}$x11, softcover. Considered the classic reference with detailed instructions on seed saving techniques and spectacular photographs. This is the book our seed growers use. -CR

***9756A:** Seed to Seed (0#) for $24.95*

The Small-Scale Poultry Flock: An All-Natural Approach to Raising and Breeding Chickens and Other Fowl for Home and Market Growers Revised edition, by Harvey Ussery, 432 pages, 8x10, softcover. This thorough book compiles four decades of whole-systems poultry husbandry into a readily accessible compendium punctuated with color photographs. Ussery approaches the subject holistically—starting with selecting flock size, species and breeds to suit landscapes, needs and goals, and advancing to breeding practices for both breed conservation and improvement. Along the way he goes beyond the basics of management, outlining principles of pasture and discussing year-round housing and fencing options while advising how to integrate your flock of "working partners" into a whole garden management scheme that builds soils, promotes plant and bird health, and puts the full Sunday dinner on the table. A whole section, including a fantastic photographic narrative on butchering, presents the best kitchen practices and some marketing strategies concerning eggs and dressed poultry. This revised edition expands the discussion, with designs for Ussery's "Ultimate Mobile Poultry Shelter," and a new section on Icelandic chickens. -DS **NEW EDITION!**



***9762A**: Small-Scale Poultry Flock (0#) for $39.95*

Stella★Natura: 2024 Biodynamic Planting Calendar edited by Sherry Wildfeuer, 40 pages, 9x12, softcover. "Inspiration and practical advice for gardeners and professional growers." Contains lunar and astronomical charts correlated with planting data that many of our customers find valuable, along with interesting articles and essays each year.

***9771A**: Stella★Natura (0#) for $19.25*

Sustainable Food Gardens: Myths and Solutions by Robert Kourik, 486 pages, 8$^{1}/_{2}$x11, softcover. Don't fear the thickness of this tome—it's saving you from reading a 3-foot-tall stack of papers, 200 books, and 1000+ digital research documents on every possible aspect of gardening. Chapters like "Free Fertilizers," "Root Dynamics" and "Conserving Resources" read like having a conversation with a wise friend. I enjoyed his sense of humor and honesty about the scientific process. Captioning the results of one study, he writes: "Why? Who knows? I certainly don't." The book's subtitle alludes to its commitment to peer-reviewed results over anecdotes (even when we don't understand them). Kourik takes care to present methods like no-till or raised beds through their most basic pros and cons, so the reader can apply the knowledge regardless of the particular demands of site and climate. "You have to make the decision as to what mixture of plants, techniques, and hardware is best for you," he advises. More than 450 illustrations! -RM

***9772A**: Sustainable Food Gardens (0#) for $69.95*

The Tao of Vegetable Gardening: Cultivating Tomatoes, Greens, Peas, Beans, Squash, Joy and Serenity by Carol Deppe, 288 pages, 7$^{1}/_{2}$x9$^{1}/_{2}$, softcover. Armed with her scientific expertise (PhD in genetics from Harvard), her acute sense of observation, and years of field experience, her far-reaching no-nonsense perspective, and her love of the Tao, legendary plant breeder Carol Deppe focuses on growing a few staple crops: peas, beans, tomatoes, squash and eat-all greens. If you've ever wondered why tomatoes of the same variety, picked from the same plant in the same year but at different times vary so much in flavor, Deppe unlocks the secrets. If you've noticed a correlation between varieties with green shoulders and great tomato flavor, Deppe tells you why. I hope she is wrong (she probably isn't) that late blight is going to doom our beloved heirloom varieties, but she gives us all the tools to do something about it before it is too late. Witty, opinionated and always breaking new ground, Carol and her book are true treasures. -NK

***9774A**: The Tao of Vegetable Gardening (0#) for $24.95*

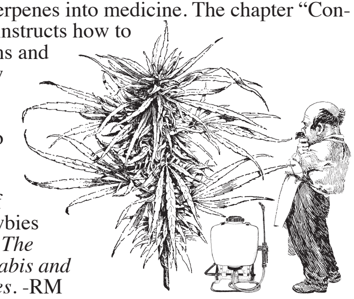
What's Wrong with My Marijuana Plant?: A Cannabis Grower's Visual Guide to Easy Diagnosis and Organic Remedies by David Deardorff and Kathryn Wadsworth, 192 pages, 7$^{1}/_{2}$x9$^{1}/_{3}$, softcover. The only book dedicated to a single species in the widely popular "What's wrong with my …." series. And for a good reason. Cannabis seems to be a very attractive host to a variety of pests and diseases. This book removes the guesswork and checks your neighbors' wisdom. The simple organization of this highly visual guide facilitates a methodical investigation of whatever is ailing your plant. Provides all-organic remedies for each problem to get your plants back to good health. Wise to have on hand before trouble hits! -AA

***9813A**: What's Wrong with My Marijuana Plant? (0#) for $24.95*

What We Sow: On the Personal, Ecological, and Cultural Significance of Seeds by Jennifer Jewell, 392 pages, 6x9, hardcover. Organized by a year in the life of a seed, Jewell weaves in her personal story of observing seeds and their rhythms from her home base in Northern California. She sheds light on diverse aspects of the modern seed world: international seed banks, neighborhood seed libraries, the seed trade, seed laws and genetic modification. She describes the botanical and ecological context of seeds and shares stories of seed keepers preserving culture through seeds, as well as conservationists championing the resurgence of planting native seeds. Includes vignettes about Fedco and the Wild Seed Project here in Maine. For anyone who has planted a seed with hope and curiosity, this book gives context for that simple yet powerful act. -RS **NEW!**

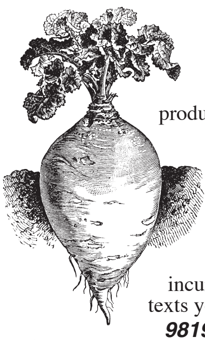
***9814A**: What We Sow (0#) for $30.00*

The Wholistic Healing Guide to Cannabis: Understanding the Endocannabinoid System, Addressing Specific Ailments and Conditions, Making Cannabis-Based Remedies by Tammi Sweet, 272 pages, 6x9, softcover. This book has something for both the cannabis-naive and the cannabis-savvy. Whether you want to make a simple cannabis tincture or oil, or make medicine for specific cannabinoids with standardized doses, there is much to learn from neurobiologist and endocrinologist Tammi Sweet. She goes deep into the chemical elements of the cannabis plant and how our bodies respond on the cellular level, with detailed instructions on how to most effectively process the various cannabinoids and terpenes into medicine. The chapter "Contraindications and Considerations" instructs how to use cannabis wisely, and "Conditions and Clinical Applications" explains how properties of the cannabis plant can be used to treat or provide support for specific conditions. The first two chapters are dense and slow to get through, but Sweet lifts the veil to reveal the fascinating complexity of this plant's powerful medicine. Newbies may prefer Sweet's new book **9490** *The Beginner's Guide to Growing Cannabis and Making Your Own Healing Remedies*. -RM



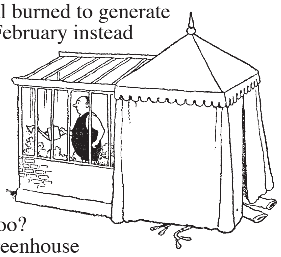
***9816A**: The Wholistic Healing Guide to Cannabis (0#) for $32.95*

Will Bonsall's Essential Guide to Radical, Self-Reliant Gardening: Innovative Techniques for Growing Vegetables, Grains and Perennial Food Crops with Minimal Fossil Fuel and Animal Inputs by Will Bonsall, 400 pages, 8x10, softcover. As a former apprentice of Will's, I assumed his book would be a nostalgic journey but not especially enlightening. I couldn't have been more wrong. There are enough gardening philosophies and techniques in this book to keep anybody learning for many seasons to come. The product of more than 40 years experience, this book doesn't waste time on the basics. Instead, Will focuses on the approaches unique to his subsistence farm, and I bet you'll want to try more than a few of these innovations. Will has taken the process of composting and "turned it" into an art form. Based on his idea of "eco-efficiency," Will shares wisdom about seed propagation, farm system design, growing staple crops like grains and oilseeds, and food processing. Plus, his incurable wit makes this one of the most entertaining agricultural texts you'll ever read. -JPR



***9819A**: Will Bonsall's Essential Guide (0#) for $39.95*

The Year-Round Solar Greenhouse: How to Design and Build a Net-Zero Energy Greenhouse by Lindsey Schiller with Marc Plinke, 307 pages, 7$^{1}/_{4}$x8$^{3}/_{4}$, softcover. Is it worth the coal burned to generate the electricity to grow a tomato in Maine in February instead of trucking it in from Florida? Should we even eat tomatoes in Maine in February, or should we virtuously resign ourselves to months of turnips, boredom and scurvy? As greenhouses gain popularity as season extenders, they have earned some backlash for their energy-hungry need for supplemental heating and lighting. But what if we can have our tomatoes and our virtue, too? Schiller and Plinke show how to minimize greenhouse energy use both through basic good planning (siting, orientation, proper materials selection, good insulation) and through more advanced techniques. Also includes information on solar hot water, rocket mass stoves and compost heaters, as well as aquaponic and hydroponic systems. -AC



***9828A**: The Year-Round Solar Greenhouse (0#) for $34.99*

Order online at fedcoseeds.com

Division	Products	Find on pages	Schedule	Shipping Charges	Pickups
Seeds items 200-5999	vegetable, herb and flower seed	pages 5-110 order form pg 169	Daily shipping begins mid-Dec. 2023. Twice-a-week shipping begins in May. No shipping Nov. 1 to early Dec. We will ship backorders at our discretion; however, crops needing an early start are shipped ASAP.	Free for all orders $50 and over. Under $50, pay $6 shipping charge. We ship to Canada: internet orders only, shipping charges apply.	Order online; we send a confirmation email when order is ready. Pick up at OGS warehouse. (Hours listed below.) Seeds warehouse is closed for browsing.
Potatoes, Onions & Exotics items 7000-7999	seed potatoes, onion sets & plants, ginger & turmeric, sweet potato slips	pages 116-122 order form pg 171	Order ginger and turmeric by Feb 23. Order by March 8 for best availability of potatoes, and for early April shipping to warm states. We will take potato orders until we run out in late spring.	See chart on order form, page 171. For lower prices, consider depot shipping, details pg 174.	Pickup orders must be placed online. We send a reminder email in the spring.
Organic Growers Supply (OGS) items 8000-9999	cover crops, soil amendments, tools, supplies, books	pages 126-167 order form pg 173	We ship year-round!	See chart on order form, page 173. Items with (0#) weight ship for free. For lower prices, consider depot shipping, details pg 174.	Pickup orders must be placed online. Warehouse is open for pickups and shopping (hours below). Order in advance for best service.

Directions for all three paper order forms:

• Please use a current catalog.

Prices, item numbers and availability change!

Need a current catalog? Request one at (207) 426-0090.

• Please use the correct order form.

• You can mail the different order forms together in the same envelope, but please write **separate checks** for each division's form.

• If you pay by **card,** we will charge you when we receive your order. We will send you a bill or a refund for any adjustments as each order is completed.

• Please subtotal each column and total your order. That helps us check our order-entry accuracy.

• Sales Tax: Orders shipped to Maine addresses and all pickup customers pay 5.5% sales tax on all products. We must collect local taxes in states that require us to do so. States affected are listed on the order form. *Farms and retailers:* please send us a copy of your state resale certificate or farm exemption. Otherwise we must charge sales tax.

• Shipping: We ship by FedEx or Priority Mail, our choice, based on weight. Orders over 300 lb, consider a truck shipment, details on p. 174. Shipping to Alaska & Hawaii is all by Priority Mail.

Substitution policy: Unless you decline substitutions on your order form, we will substitute for items that we cannot supply:

- We will substitute a variety of the same kind and similar season.
- If we have to substitute a more expensive variety, we won't charge you more.
- If we run out of organic seed we will substitute high-quality conventional seed for the same variety unless you specify otherwise on your order form.

For information on Seeds backorders and out-of-stocks, see page 3.

FEDCO SEEDS

Garden · Farm · Orchard

Come shop at our
Organic Growers Supply warehouse
688 Bellsqueeze Rd, Clinton, ME 04927
Open year-round for walk-in sales and preorder pickups
January through June: Monday–Friday, 9am–3pm
July through December: Tuesday–Thursday, 9am–3pm
Closed June 24-28, 2024, for inventory. Closed holidays (check website).

Change to volume discount program: In order to provide high-quality products at competitive prices, we are discontinuing our old volume discount program. While these smaller discounts are going away, we are now better positioned to build savings directly into our list prices. We think this is the best way to keep prices fair.

Bulk Pricing: Large orders over $1200 qualify for bulk pricing.

- You may not combine subtotals from different divisions to reach the bulk pricing threshold.
- **Seeds:** Orders with subtotals over $1200 receive 20% off.
- **Potatoes:** Orders with subtotals over $1200 qualify for bulk pricing. *Download bulk price list at fedcoseeds.com/moose/MTdisc.htm or call us.*
- **Organic Growers Supply:** Once your cumulative orders total over $1200 within 12 months, you qualify for bulk pricing on additional orders going forward. *Call or email us for OGS bulk price list.*
- Once you meet the bulk pricing threshold, **additional orders over $50** qualify for bulk pricing if they are ordered from the same address.

5% Early Bird discount (OGS only) for orders placed before December 31, 2023, and shipped or picked up by January 13, 2024.

1% Member discount Learn about joining our co-op on page 6.

Group Ordering:

Team up with friends and neighbors to save on shipping and to reach the bulk pricing threshold.

We will pull, package and label each group member's order separately and ship all to one address.

We accept group orders online. Group coordinators can find details at our website. Go to "About Ordering" and click on "Group Ordering."

Or use the mail and bundle individual orders with a summary form for each division with address info and totals. Please keep copies.

To prepare a summary form for paper orders:

- Attach a separate summary page for each division (Seeds, Potatoes, OGS). Use an order form with no items on it, supply name and address for where we will ship the order, and totals information.
- A summary form without individual totals is acceptable.
- Please use one method of payment for each division order. You may combine totals for all divisions and send one check.
- We treat all add-ons as additional orders.

Group coordinators' responsibilities:

- Collect individual orders and payments from group members.
- Make sure each item of each individual order is on the proper form. Add up order subtotals for each division.
- Keep track of individual payments and settle with group members after the final shipment.
- Bundle orders for each division with a summary and one payment and send to us.
- Receive and distribute back-ordered items.
- Send us corrections for any errors.

Fedco Seeds 2024

PO Box 520
Clinton, ME 04927

This order form is for **items 200-5999, pages 5-110 only.**
Other items may not be combined on this order form .

VEGETABLE, HERB & FLOWER SEED ORDER FORM

(From mailing label) CC-

Farm or Group Name

Name

US Mail Delivery Address

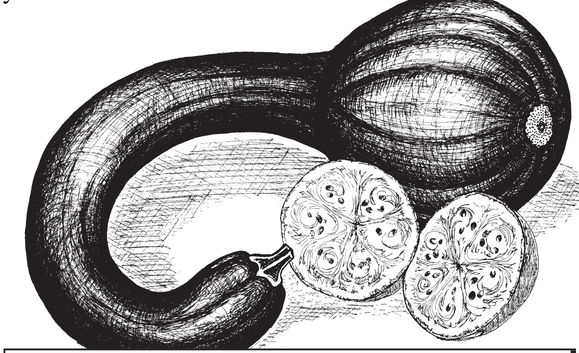
Town St Zip

FedEx Delivery Address
(if different, no PO Boxes)

Town St Zip

Phone

Email



Final order deadline: **October 30, 2024**	Check up-to-date product availability, view photos and order online at **fedcoseeds.com**

Delivery:
☑ **FedEx or U.S. Mail**
To PICK UP seeds, please order online.

☐ Hold my order until ______ if some items are on backorder.
☐ Ship my order ASAP and ship any backordered items later.

Substitution Options (see p. 168):

Yes	No	
☐	☐	Will you accept substitutions?
☐	☐	Will you accept conventional seed of the same variety for organic seed?

Payment Options:
We accept payment by card, check, gift certificate and money order (payable to Fedco).

	Item #	Size	Qty	Item Name	Total Price		Item #	Size	Qty	Item Name	Total Price
ex	*3993*	*A*	*2*	*Example Item*	*0.00*	13					
1						14					
2						15					
3						16					
4						17					
5						18					
6						19					
7						20					
8						21					
9						22					
10						23					
11						24					
12						25					
				Total						**Total**	

Pg 169 Total	
Pg 170 Total	+
Subtotal	=
Bulk Pricing, orders $1,200+ take 20% off	–
Fedco Member? 1% Discount from Subtotal	–
Adjusted Total	=
Shipping	+
Sales Tax	+
Donate to Seed Farmers Resilience Fund (see p. 31)	+
Optional $2 to defray catalog mailing cost	+
Grand Total	=

Help Support Nibezun!

You can choose to donate your refund to the Nibezun Project.
(See Indigenous Royalties on p. 4)

- ☐ Donate up to $25.00
- ☐ Donate up to $10.00
- ☐ Donate up to $5.00

Shipping Charges:

Adjusted Total under $50	$6.00
Adj Total ≥ $50	FREE

Sales Tax:

ME addresses	- Pay 5.5% sales tax on Adjusted Total
CO, IL, MA, MD, MI, UT, VA	- Pay your local tax rate on Adj Total
AK, CT, GA, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV	- Shipping is taxable. Pay your local tax rate on **Adj Total + Shipping**.

We accept Visa, MasterCard, American Express and Discover Card. Exp. Date

Fedco Seeds 2024: items 200-5999, pages 5-110 only

	Item #	Size	Qty	Item Name	Total Price		Item #	Size	Qty	Item Name	Total Price
26						70					
27						71					
28						72					
29						73					
30						74					
31						75					
32						76					
33						77					
34						78					
35						79					
36						80					
37						81					
38						82					
39						83					
40						84					
41						85					
42						86					
43						87					
44						88					
45						89					
46						90					
47						91					
48						92					
49						93					
50						94					
51						95					
52						96					
53						97					
54						98					
55						99					
56						100					
57						101					
58						102					
59						103					
60						104					
61						105					
62						106					
63						107					
64						108					
65						109					
66						110					
67						111					
68						112					
69						113					
				Total						**Total**	
										Pg 170 Total	

Potatoes, Onions & Exotics 2024

PO Box 520
Clinton, ME 04927

This form is for **items 7000-7999, pages 116-122 only.** Other items may not be combined on this order form.

POTATO ORDER FORM

(From mailing label) CC-

Farm or Group Name

Name

US Mail Delivery Address

Town St Zip

FedEx Delivery Address
(if different, no PO Boxes)

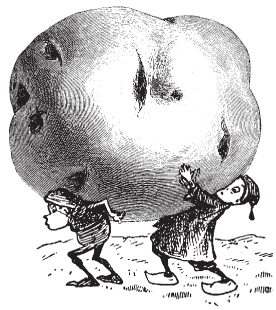
Town St Zip

Phone

Email

We anticipate high order volume in 2024; **order early if you need your potatoes early**.

Orders placed before March 8 will be shipped according to growing zone as usual. Orders placed after March 8 will be shipped later, and in the order in which they are received.



Exotics (p. 117) deadline:
February 23, 2024
Potato order deadline:
Late spring, when we run out of stock!

Check up-to-date product availability, view photos and order online at **fedcoseeds.com**

Delivery:

☑ **FedEx/Priority Mail**

To PICK UP potatoes and sets at our warehouse or at a depot, order online.

Check our website for your depot's order deadline.

Substitution Options:

(read our policy on p. 115 or fedcoseeds.com/moose/MTsubs.htm)

Yes	No	
☐	☐	Will you accept substitutions?
☐	☐	Will you accept conventional seed of the same variety for organic seed?

Payment Options:

We accept payment by card, check, gift certificate and money order (payable to Fedco).

Bulk Pricing:

Subtotals $1200 and over qualify for bulk pricing.

Download or call for our bulk price list.

Sales Tax:

ME addresses	-	Pay 5.5% sales tax on Adjusted Total
CO, IL, MA, MD, MI, UT, VA	-	Pay your local tax rate on Adj Total
AK, CT, GA, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV	-	Shipping is taxable. Pay your local tax rate on **Adj Total + Shipping**.

Help Support Scatterseed!

You can choose to donate your refund to the Scatterseed Project. (See p. 124)

☐ Donate up to $25.00
☐ Donate up to $10.00
☐ Donate up to $5.00

Subtotal (from reverse)	=
Fedco Member? 1% Discount from Subtotal	–
Adjusted Total	=
Shipping (if no weight, no charge, otherwise use chart below)	+
Sales Tax	+
Donate to Scatterseed (see p. 124)	+
Optional $2 to defray catalog mailing cost	+
Grand Total	=

Total Wt (from reverse) =

Order weight: →	**more than 0 up to 2 lb**	**up to 5 lb**	**up to 15 lb**	**up to 25 lb**	**up to 35 lb**	**up to 45 lb**	**up to 300 lb**	**orders over 300 lb**
ZIP code begins with:								
004-298	12.00	20.00	23.00	29.00	34.00	39.00	87¢/lb	Consider delivery by freight truck. Go to: fedcoseeds.com/moose/shipping, or email/call us.
299-687	12.00	20.00	26.00	36.00	43.00	45.00	$1.00/lb	
688-994	12.00	20.00	32.00	45.00	50.00	55.00	$1.22/lb	

*****For shipping weights over 300 lb or delivery to AK or HI, email ogs@fedcoseeds.com for a quote.*****

We accept Visa, MasterCard, American Express and Discover Card. Exp. Date

☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐ ☐☐

Potatoes, Onions & Exotics 2024: items 7000-7999, pages 116-122 only

	Item #	Size	Qty	Item Name	Weight Each	Total Weight	Price Each	Total Price
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
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24								
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27								
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30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
					Total Wt		**Subtotal**	

Organic Growers Supply 2024

PO Box 520
Clinton, ME 04927

This form is for **items 8000-9999, pages 126-167 only.**
Other items may not be combined on this order form.

(From mailing label) CC-

Farm or Group Name

Name

US Mail Delivery Address

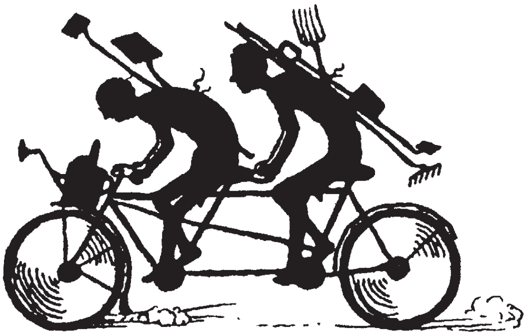
Town St Zip

FedEx Delivery Address
(if different, no PO Boxes)

Town St Zip

Phone

Email



OGS Early Bird Discount cutoff: **December 31, 2023** Final order deadline: **None!**	Check up-to-date product availability, view photos and order online at **fedcoseeds.com**

Delivery:

☑ **FedEx/Priority Mail**

To PICK UP your supplies at our warehouse or at a depot, please order online.

Payment Options:

We accept payment by card, check, gift certificate and money order (payable to Fedco).

Help Support MOFGA!

You can choose to donate your refund to MOFGA. (See p. 159)

☐ Donate up to $25.00
☐ Donate up to $10.00
☐ Donate up to $5.00

Bulk Pricing:	OGS Early Bird Discount:
Subtotals $1200 and over qualify for bulk pricing. *Download or call for our bulk price list.*	Order by December 31, 2023 and take 5% off. *(Does not apply to bulk pricing.)*

Sales Tax:	
ME addresses	- Pay 5.5% sales tax on Adjusted Total
CO, IL, MA, MD, MI, UT, VA	- Pay your local tax rate on Adj Total
AK, CT, GA, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV	- Shipping is taxable. Pay your local tax rate on **Adj Total + Shipping**.

Subtotal (from reverse)	=
Early Bird Discount	–
Fedco Member? 1% Discount from Subtotal	–
Adjusted Total	=
Shipping (if no weight, no charge, otherwise use chart below)	+
Sales Tax	+
Donate to MOFGA (see p. 159)	+
Optional $2 to defray catalog mailing cost	+
Grand Total	=

Total Wt (from reverse) =

Order weight: ➔ ZIP code begins with:	more than 0 up to 2 lb	up to 5 lb	up to 15 lb	up to 25 lb	up to 35 lb	up to 45 lb	up to 300 lb	orders over 300 lb
004-298	12.00	20.00	23.00	29.00	34.00	39.00	87¢/lb	Consider delivery by freight truck. Go to: fedcoseeds.com/ogs/shipping, or email/call us.
299-687	12.00	20.00	26.00	36.00	43.00	45.00	$1.00/lb	
688-994	12.00	20.00	32.00	45.00	50.00	55.00	$1.22/lb	

*****For shipping weights over 300 lb or delivery to AK or HI, email ogs@fedcoseeds.com for a quote.*****

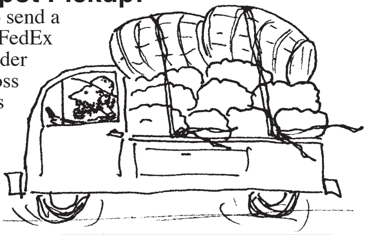
We accept Visa, MasterCard, American Express and Discover Card. Exp. Date

☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐ ☐☐

Organic Growers Supply 2024: items 8000 and up, pages **126-167** only

	Item #	Size	Qty	Item Name	Weight Each	Total Weight	Price Each	Total Price
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
					Total Wt		**Subtotal**	

Save on Shipping with Depot Pickup!



Above a certain weight, it's cheaper to send a pallet of goods than lots of individual FedEx packages, but most customers don't order enough at one time on their own to cross that threshold. To make freight savings available to more folks, we offer the Depot Shipping Program for Growers Supply items, as well as potatoes and sets. By selecting "Ship to Depot" at checkout, your order will be grouped with other depot customers in your area, sent via freight to the farm or storefront you selected, and save you up to 80% on shipping.

Depot Shipping	
state	per lb
ME	$0.17
MA, NH, RI, CT, VT	$0.18
NY, NJ	$0.29
minimum shipping $3.00	

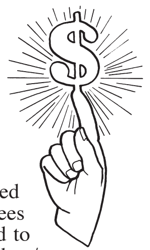
- We accept depot orders all winter, online only; depot shipping season runs from March to May. Some depots have multiple shipments throughout that time; a few depots accept shipments only in April, when potato orders ship. Our most popular depots also receive a shipment in October.
- Our goal is to have orders available within two weeks after the order deadline. We will send a notification e-mail with pickup instructions when your order is ready. We expect customers to pick up their orders within a week of this notification. If you place a depot order and don't hear from us within two weeks of the order deadline, please check the inbox and spam folder of the email address you used to place your order before contacting us.

At press time, we had depots in these locations:

Maine (Whitefield, Edmunds, Camden, and South Berwick);
New Hampshire (Canaan, Contoocook);
Massachusetts (Buzzards Bay);
Rhode Island (Cranston and Little Compton);
Vermont (Dummerston and Manchester);
Connecticut (West Granby and Woodbridge),
New York (Delmar, Norwich and Nedrow);
New Jersey (Asbury and Pennington);

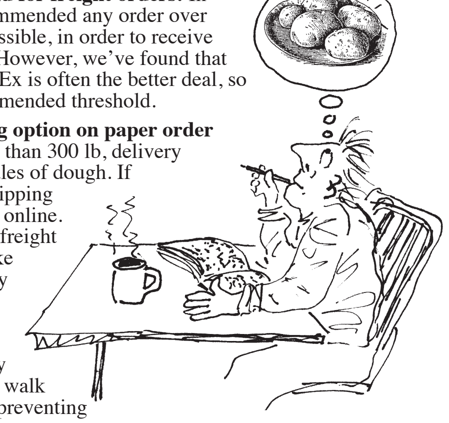
Check the current list of depot sites and ordering deadlines at:
fedcoseeds.com/ogs/depot_shipping.htm or email logistics@fedcoseeds.com

Changes to Potatoes and OGS Shipping



No matter how much Fedco has evolved over the years, we remain primarily a mail-order business. This puts us at the mercy of the shipping industry, as costs climb ever-upward. We are continually striving for the right mix of shipping strategies that serve our customers well, while not putting us in the hole. OGS and Potatoes have made a few changes this year that bear explanation:

- **45 lb bags/boxes instead of 50 lb:** Last year we noticed FedEx was charging us thousands of dollars in handling fees for all our packages 50 lb or more. To avoid these fees and to keep our prices as low as possible, we've reduced our largest bag/box size to 45 lb for any potatoes or amendments we repack.
- **A higher weight threshold for freight orders:** In previous years, we've recommended any order over 200 lb ship via freight if possible, in order to receive the best price on shipping. However, we've found that for orders up to 300 lb, FedEx is often the better deal, so we've increased that recommended threshold.



- **No more freight-shipping option on paper order form:** If your order is more than 300 lb, delivery by freight can save you oodles of dough. If you are interested in this shipping option, you'll need to order online. Additional fees charged by freight companies—for services like liftgates, residential delivery and freeze protection for potato orders—are too complicated to calculate on the paper form. Our nifty online ordering system will walk you through these options, preventing unexpected charges later on.

For quotes or questions about freight shipping, go to: fedcoseeds.com/ogs/shipping, or call/email us.

We're hoping our attempts to keep up with the times will result in a more sustainable shipping business for Fedco and a smoother experience for you. **For any questions, email us at: logistics@fedcoseeds.com**

Quick Reference

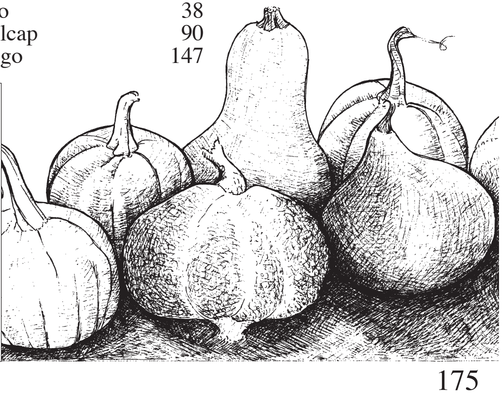
pages
Vegetables 7-82
Herbs: culinary & medicinal 85-91
Flowers 94-110
Potatoes, onions & exotics 116-124
Cover crops and supplies 125-159
Books 160-167

Information Charts & Lists
- Vegetables 83
- Herbs 84
- Flowers 92-93
- Botanical Index: herbs & ornamentals 111
- Organic seed variety list 112-113
- Potatoes 124
- Farm Seed: cover crop, forage & field 125

Ordering Instructions & Forms 168-174

Index

page
Achillea 91, 94
Ageratum 94
Alfalfa 126
Alfalfa Meal 135
Alyssum 94
Amaranths 94
Anise 85
Arnica 85
Artichoke 8
Arugula 32
Ashwaganda 85
Asian Greens 36-38
Asters 95
Azomite 134
Bachelor's Button 95
Bags 119
Barley 31, 126
Basil 85-86
Baskets, Boxes 155
Beans 8-14
Bee Balm 86, 96
Beets 14-15
Begonia 96
Bell Beans 127
Bitter Melon 67
Black-eyed Susan 105
Books 160-167
Borage 86
Broccoli 16-17
Brussels Sprouts 17
Bt 147
Buckwheat 127
Burdock 63
Cabbage 18
Calcium 133-134
Calendula 96
Cantaloupe 48-49
Carrots 20-21
Castor Oil 146
Cauliflower 19
Celery & Celeriac 22
Celosia 97
Chamomile 87
Chard 33
Chervil 87
Chicory 33, 127
Chinese Cabbage 37
Chives 87
Cilantro 87
Claytonia 34
Cleome 97
Clovers 128
Collards 40
Collections, Seed 7
Collections, Potato 122
Columbine 97
Compost 139
Copper 134, 145
Corn 23-25
Cosmos 98
Cover Crops 126-131
Cress 34
Cucumbers 26-28
Cumin 87
Daikon 63, 130
Deer Stopper 146
Delphinium 98
Dianthus 98
Diatomaceous Earth 146
Dill 87
DiPel 147
Drip Irrigation 156-157
Dry Beans 10-12
Dye Plants 110
Echinacea 88
Edamame 14
Eggplant 29
Endive 34
Epazote 88
Fabrics 142
Farm Seed 126-131
Fava Bean 13, 127
Felco Tools 153-154
Fennel 29, 88
Fertilizers 132-138
Fingerlings 118
Flax 99
Flower Mixes 7
Flowers 7, 94-110
Foliar Feeds 132, 135-136
Fundraiser 6
Fungicides 145-146
Ginger 117
Globe Amaranth 99
Gloves 158
Gourds 30
Grafting Supplies 152
Grains 31, 126-131
Grasses 126-131
Greens 32-38, 64
Herbs 85-91
Hollyhocks 100
Honeydew 49
Hot Peppers 60-61
Husk Cherry 73
Impatiens 100
Indigo 110
Inoculants 9, 131
Insecticides 145-147
Irrigation, Drip 156-157
Kale 39-40
Karanja 144
Kohlrabi 40
Labels & Markers 155
Larkspur 101
Lavender 88
Leeks 54
Lemongrass 89
Lettuce 41-46
Lima Bean 13
Loppers 153
Love-in-a-Mist 101
Luffa 30
Lupine 101
Mâche 34
Marigolds 102
Marjoram 89
Melons 47-50
Membership 6
Mesclun 32
Millet 102, 128
Minerals 133-135
Mizuna 37
Morning Glory 103
Motherwort 89
Mulches 141
Muskmelon 47-49
Mustards 32, 37-38, 89, 128
Nasturtiums 103
Neem 136, 144
Nepeta 86, 97
Netting 142
Nigella 101
Oats 31, 129
Okra 51
Onion Seed 51-53
Onion Sets & Plants 116
Oregano 90
Pac Choi 38
Pansy 101, 104
Parsley 90
Parsley, Root 63
Parsnip 54
Peas 55-56, 129
Peppers 57-61
Pest Control 143-147
Petunia 104
Phacelia 104
Phlox 104
Phosphate 135
Planting Mixes 137-138
Popcorn 25
Poppies 105
Potatoes 118-122
Potting Mixes 139-140
Probiotics 132
Pruning Tools 153-154
Pumpkins 72-73
Purslane 34
PyGanic 147
Raab 17
Radicchio 34
Radishes 38, 62-63, 130
Ramps 54
Rice 31
Rock Powders 133-135
Rocket 32, 35
Rosemary 90
Romanesco 17
Row Covers 142
Rudbeckia 105
Rutabaga 82
Rye 130
Ryegrass 130
Sage 90
Salvia 106
Savory 90
Scallion 54
Scorzonera 63
Season Extenders 141-142
Seaweeds 135-136
Seed Racks 6
Seed Treatments 60, 79, 132
Seed-Starting 148-149
Shallot Seed 53
Shallot Sets 116
Shasta Daisy 98
Shiso 38
Skullcap 90
Sluggo 147
Snapdragon 106
Snow & Snap Peas 56
Soil Amendments 133-138
Soil Blockers 149
Soil Testing Service 7, 133
Sorghum 31, 106, 127
Sorrel 35
Soybeans 14
Soybean Meal 136
Spilanthes 91
Spinach 64
Spinosad 147
Sprayers 157
Spreader-stickers 146
Squash, Summer 65-67
Squash, Winter 68-73
Statice 106
Stevia 91
Stock 106
Strawflower 106
Substitutions 115, 168
Sulfur 135, 145
Sunflowers 107, 110
Sunn Hemp 130
Surround 146
Sweet Peas 108
Sweet Potato Slips 117
Tatsoi 36
Thyme 91, 109
Timothy 130
Tithonia 109
Tomatillo 73
Tomatoes 74-81
Tools 150-157
Tree-planting Mixes 138
T-shirts 159
Tulsi 86
Turmeric 117
Turnips 82
Verbena 91, 109
Vetch 130
Watercress 35
Watermelon 49-50
Wheat 31, 109, 131
Worm Castings 138
Zinnia 109-110
Zucchini 66-67



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